

2 0 1 8

# Primary 6 Mathematics

1	Raffles Girls		SA1	SA2
2	Nanyang			SA2
3	Maris Stella		SA1	
4	CHIJ		SA1	SA2
5	Nan Hua		SA1	
6	Tao Nan		SA1	SA2
7	Rosyth		SA1	SA2
8	SCGS		SA1	
9	Henry Park		SA1	
10	Anglo-Chinese		SA1	SA2
11	MGS			SA2
12	Pei Chun			SA2
13	Temasek			SA2
14	Pei Hwa			SA2
15	Maha Bodhi			SA2
16	River Valley			SA2





# Anglo-Chinese School (Junior)



## SEMESTRAL ASSESSMENT 1 (2018)

PRIMARY 6

MATHEMATICS

PAPER 1

Booklet A

Wednesday

9 May 2018

1 h

Name: \_\_\_\_\_ ( ) Class: 6. ( )

### INSTRUCTIONS TO PUPILS

- 1 Do not turn over the pages until you are told to do so.
- 2 Follow all instructions carefully.
- 3 Answer ALL questions.
- 4 Shade your answers in the Optical Answer Sheet (OAS) provided.
- 5 You are not allowed to use a calculator for this paper.

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This question paper consists of 7 printed pages (inclusive of cover page).



Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4) and shade your answer (1, 2, 3 or 4) on the  
Optical Answer Sheet (OAS). (20 marks)

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1. The height of an adult male human is about \_\_\_\_\_.
  - 1) 17 cm
  - 2) 17 m
  - 3) 170 cm
  - 4) 170 m
  
2. There were 613 478 downloads for a mobile game last month.  
Round this number to the nearest thousand.
  - 1) 600 000
  - 2) 610 000
  - 3) 613 000
  - 4) 614 000
  
3. In 6.543, what does the 4 stand for?
  - 1) 4 ones
  - 2) 4 tens
  - 3) 4 tenths
  - 4) 4 hundredths

4. What is the value of  $10 \div 5000$ ?

- 1) 500
- 2) 50
- 3) 0.02
- 4) 0.002

5. Which of the following fractions is closest to 1?

1)  $\frac{3}{4}$

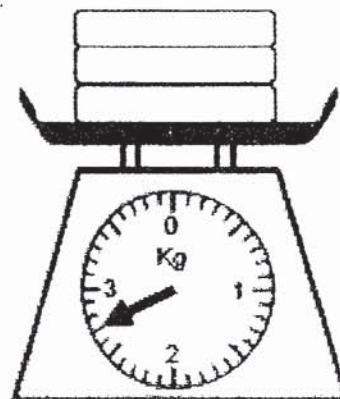
2)  $\frac{4}{3}$

3)  $\frac{5}{6}$

4)  $\frac{6}{5}$

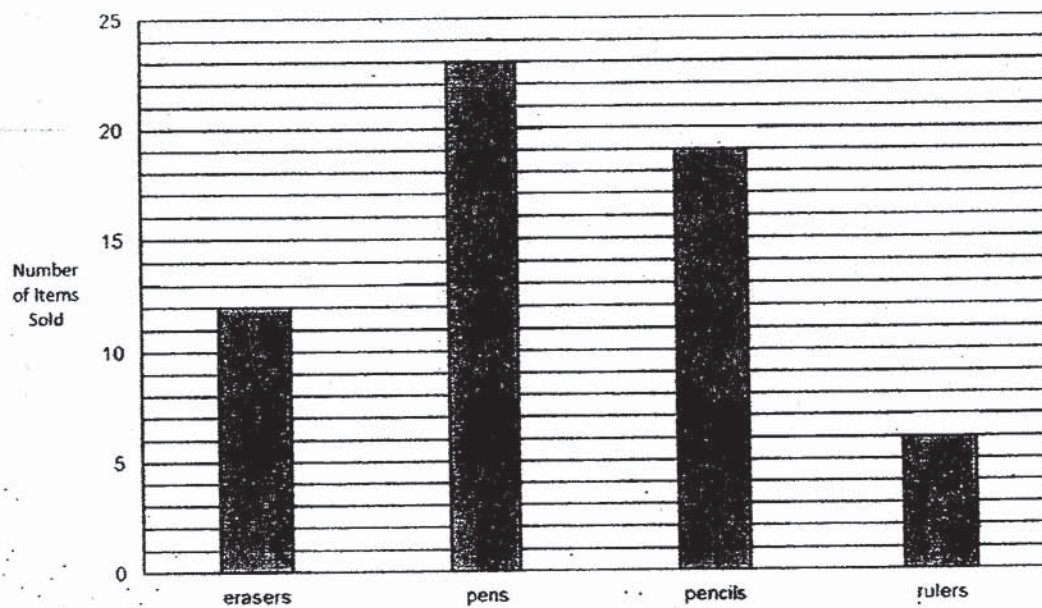
6. The mass of 3 identical books is shown on the weighing scale below.  
What is the mass of 1 book?

- 1) 0.09 kg
- 2) 0.9 kg
- 3) 2.07 kg
- 4) 2.7 kg



A3

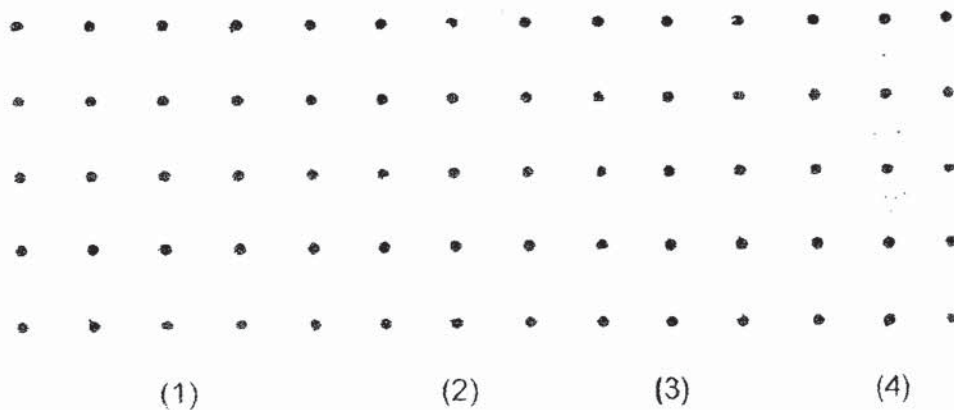
7. The graph below shows the number of stationery sold in a book shop on Monday.



What was the total number of erasers, pencils and rulers sold on Monday?

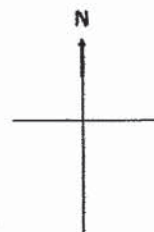
- 1) 37
- 2) 41
- 3) 54
- 4) 60

8. In the dotted grid below, which of the following shape is a rhombus?



9. Ahmad was facing south-west at first. He makes a  $225^\circ$  anti-clockwise turn. In which direction is he facing now?

- 1) North
- 2) East
- 3) North-East
- 4) South-East



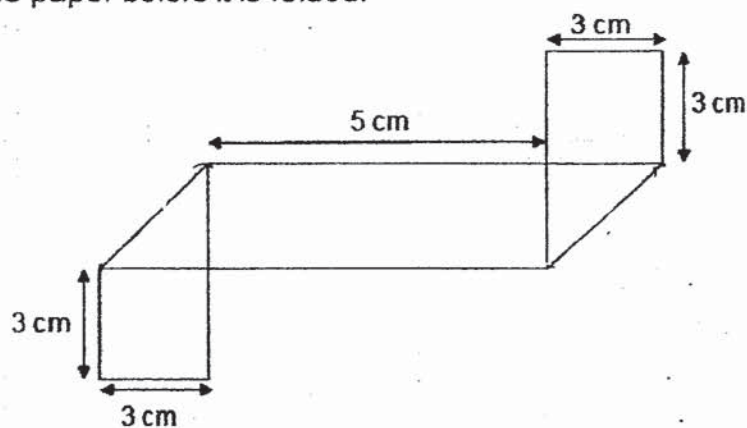
10. The price of a bag is 7 times the price of a book and the price of the same book is 4 times the price of a pen. Find the ratio of the price of the pen to the price of the bag.

- 1) 1 : 7
- 2) 1 : 28
- 3) 7 : 1
- 4) 28 : 1

11. Chairs were arranged in rows in a hall. Guo Ming sat on one of the chairs. There were 4 chairs to his left and 7 chairs to his right. There were 4 rows of chairs in front of him and 4 rows of chairs behind him. How many chairs were there in the hall?

- 1) 88
- 2) 96
- 3) 99
- 4) 108

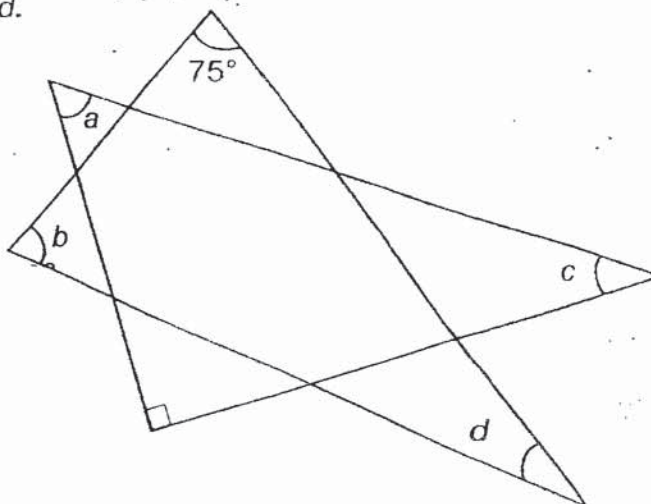
12. A rectangle piece of paper is folded twice as shown below. Find the area of the paper before it is folded.



- 1)  $42 \text{ cm}^2$
- 2)  $45 \text{ cm}^2$
- 3)  $48 \text{ cm}^2$
- 4)  $51 \text{ cm}^2$

13. Find the sum of  $\angle a$ ,  $\angle b$ ,  $\angle c$  and  $\angle d$ .

- 1)  $90^\circ$
- 2)  $105^\circ$
- 3)  $165^\circ$
- 4)  $195^\circ$





14. Jack and Tom had some money. Jack spent \$10 and gave Tom \$15. In the end, Jack had the same amount of money as Tom. How much more money did Jack have than Tom at first?

- 1) \$5
- 2) \$25
- 3) \$30
- 4) \$40

15. In a carpark, there were  $y$  cars. The number of cars was three times the number of vans. The number of motorcycles was 15 more than the number of vans. Which of the following algebraic expressions correctly shows the number of motorcycles in the carpark?

- 1)  $3y + 15$
- 2)  $\frac{y}{3} + 15$
- 3)  $\frac{y}{3} - 15$
- 4)  $\frac{y + 15}{3}$

End of Booklet A



# Anglo-Chinese School (Junior)



## SEMESTRAL ASSESSMENT 1 (2018)

### PRIMARY 6

### MATHEMATICS

### PAPER 1

### Booklet B

**Wednesday**

**9 May 2018**

**1 h**

Name: \_\_\_\_\_ (     )     Class: 6.(     )

#### INSTRUCTIONS TO PUPILS

- 1 Do not turn over the pages until you are told to do so.
- 2 Follow all instructions carefully.
- 3 Answer ALL questions.
- 4 You are not allowed to use a calculator for this paper.

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This question paper consists of 8 printed pages (inclusive of cover page).

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers to the units stated. (5 marks)

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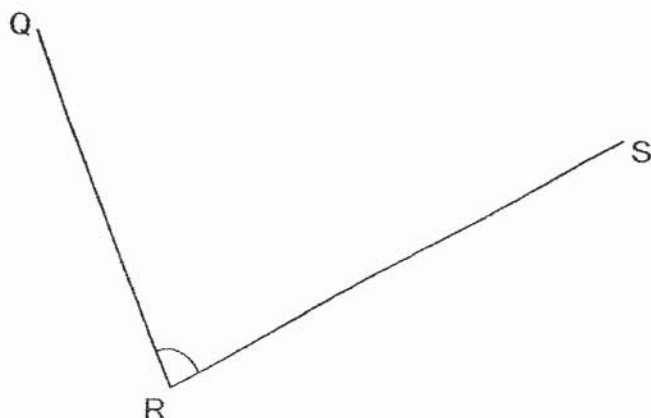
16. Express 6.45 as a mixed number in its simplest form.

Ans : \_\_\_\_\_

17. Find the sum of  $\frac{2}{3}$  and  $\frac{5}{7}$ .  
Leave your answer as a mixed number in its simplest form.

Ans : \_\_\_\_\_

18. Measure and write down the value of  $\angle QRS$ .



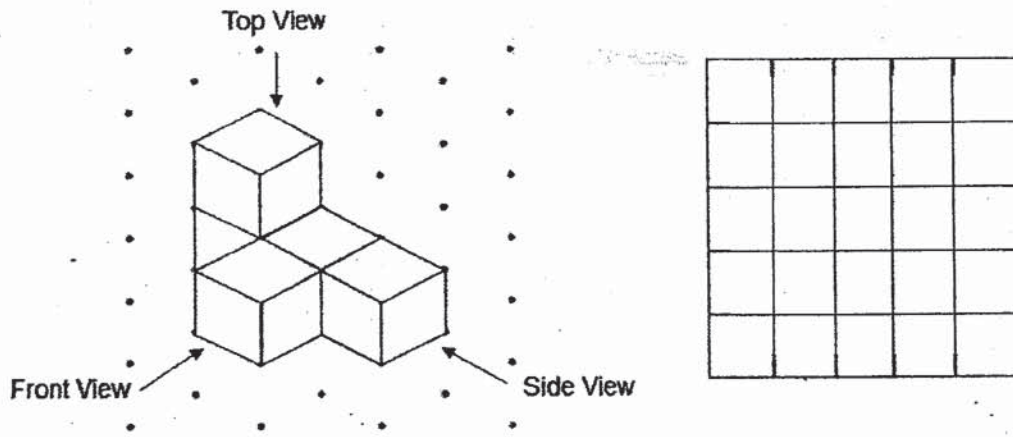
Ans : \_\_\_\_\_<sup>o</sup>

B2

Sub-Total :

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19. The following figure is made up of unit cubes. **Shade** the top view of the figure in the given square grid on the right.



20. What is the price of the toaster after adding 7% GST?



Ans : \$ \_\_\_\_\_

B3

Sub-Total

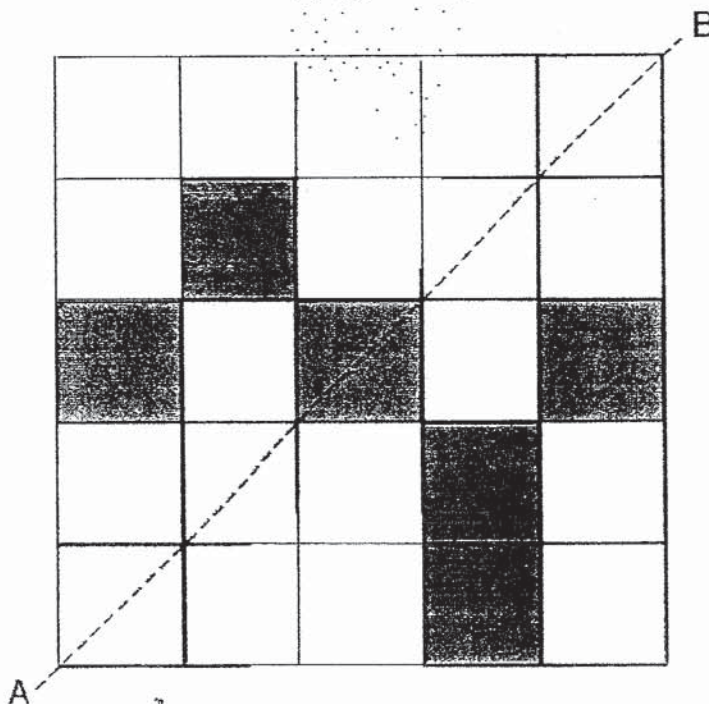
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Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which requires units, give your answers in the units stated. (20 marks)

21. There are red, blue and yellow marbles in a box.  $\frac{2}{7}$  of the marbles are red.  $\frac{3}{10}$  of the remaining marbles are blue and the rest are yellow. Given that there are 5 yellow marbles, how many marbles are there in the box?

Ans : \_\_\_\_\_

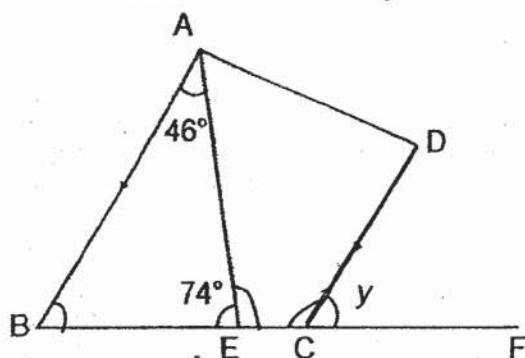
22. The figure below is made up of 25 squares. 6 of the squares in the figure are shaded. Shade 3 more squares to complete the figure so that the dotted line AB is a line of symmetry.



B4

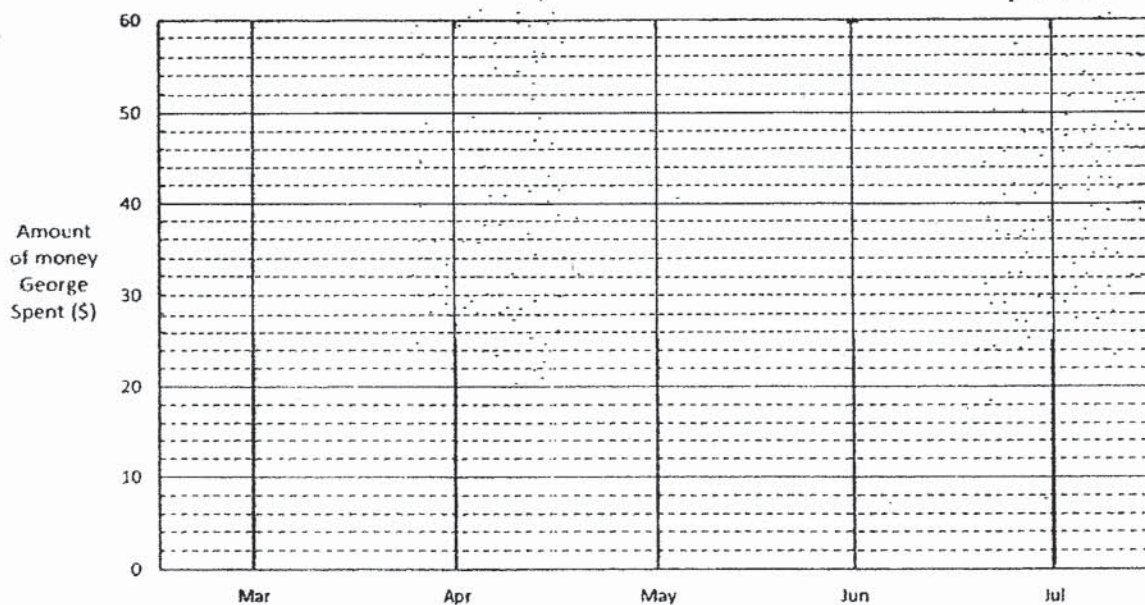
Sub-Total

23. In the figure below, ABCD is a trapezium.  $\angle BAE = 46^\circ$ ,  $\angle AEB = 74^\circ$ . Find  $\angle y$ .



Ans : \_\_\_\_\_°

George received \$60 from his dad every month for pocket money. The line graph shows the amount he spent each month. He saved whatever amount that was leftover each month.



24. How much did George save in total from March to May?

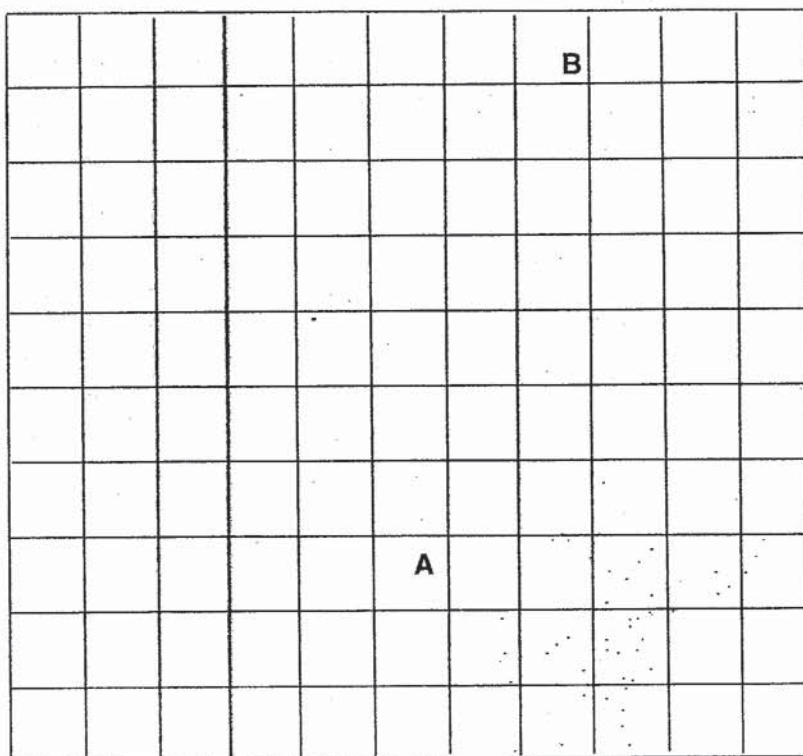
Ans : \$ \_\_\_\_\_

B5

Sub-Total



25. In the square grid below, one side of a triangle ABC have been drawn.  $\angle BAC$  is a right angle and AB is twice the length of AC. Complete the drawing of triangle ABC within the grid. [2]



26. When Adam takes a bus to get to work, it takes him 45 minutes. When he takes a taxi, it takes him  $\frac{1}{3}$  of that time. Adam needs to leave at 7.15 a.m. to get to work on time when he takes a bus. What is the latest time he needs to leave home to get to work on time when he takes a taxi? Leave your answer in the 24-hr clock format.

Ans : \_\_\_\_\_

27. Sue had 6 bottles of water. Each bottle contained the same amount of water. She poured out 200 ml of water from each bottle. After that, the amount of water left in the 6 bottles was equal to the amount of water in 4 of the bottles at first. What was the amount of water in each bottle at first? Give your answer in millilitres.

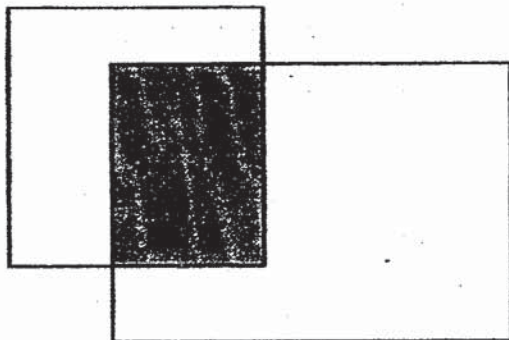
Ans : \_\_\_\_\_ ml

28. The average mass of some adults is 60 kg. There is an equal number of men and women. The average mass of the men is 70 kg.

Each statement below is either true, false or not possible to tell from the information given above. For each statement, put **one** tick (✓) in the correct column.

Statement	True	False	Not possible to tell
All the men are heavier than the women.			
The average mass of the women is less than 60 kg.			

29. The figure below is made up of a square and a rectangle. The ratio of the shaded area to the area of the square is  $2 : 3$  and the ratio of the shaded area to the area of the rectangle is  $3 : 7$ . What fraction of the figure is shaded?



Ans : \_\_\_\_\_

30. It takes 4 minutes for Tap A to fully fill an empty tank on its own. It takes 5 minutes for Tap B to fully fill the same empty tank on its own. Starting with an empty tank, how long does it take for both taps to fill the entire tank given that both taps are turned on at same time? Give your answer in minutes.

Ans : \_\_\_\_\_ min

End of Booklet B

22

Sub Total:



# Anglo-Chinese School (Junior)



## SEMESTRAL ASSESSMENT 1 (2018)

### PRIMARY 6

### MATHEMATICS

### PAPER 2

**Wednesday**

**9 May 2018**

**1 h 30 min**

Name: \_\_\_\_\_ ( ) Class: 6.( ) Parent's Signature: \_\_\_\_\_

#### INSTRUCTIONS TO PUPILS

- 1 Do not turn over the pages until you are told to do so.
- 2 Follow all instructions carefully.
- 3 Answer ALL questions.
- 4 You can use a calculator for this paper.

Paper	Booklet	Possible Marks	Marks Obtained
1	A	20	
	B	25	
2		55	
Total		100	

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This question paper consists of 16 printed pages (inclusive of cover page).

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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1. The average math scores of April, Ben, Chris and Darren was 86. When Edward's math score was added in, the average score then became 74. What was Edward's math score?

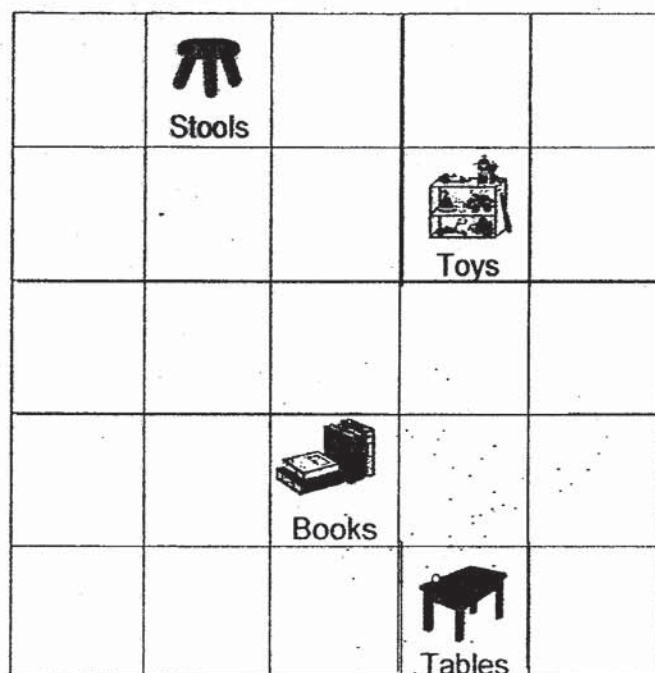
Ans : \_\_\_\_\_

2. The mass of a papaya is 2.4 kg. The mass of a durian is  $\frac{2}{3}$  the mass of the papaya. What is the total mass of both the papaya and the durian?

Ans : \_\_\_\_\_ kg

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3. The square grid below shows the plan of a playroom.



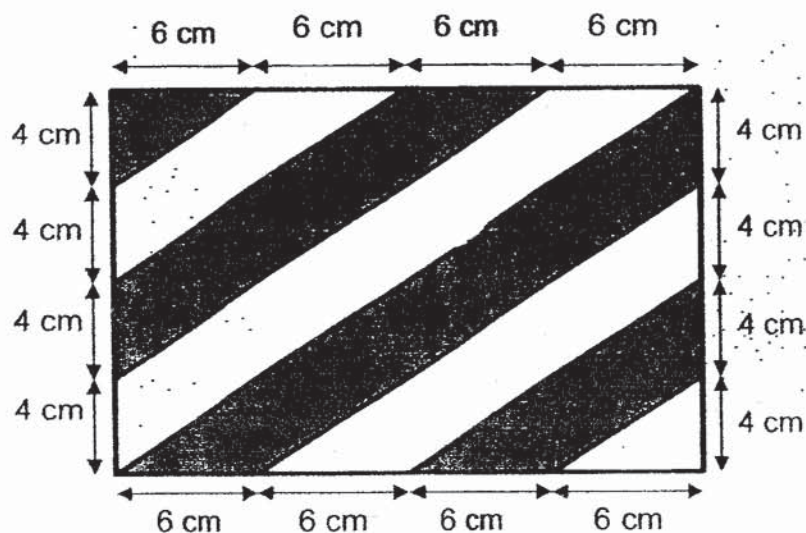
- (a) In what direction are the tables from the toys?
- (b) A new fish tank will be placed in the playroom at a location south-east of the stools and north-east of the books. Put a tick (✓) in the square where the fish tank will be placed.

Ans : (a) \_\_\_\_\_

4. A shop sold pens for 70¢ each and rulers for 50¢ each. May bought some pens and rulers. She bought 8 more rulers than pens but she spent \$1.40 more on the pens than on the rulers. How many rulers did she buy?

Ans : \_\_\_\_\_

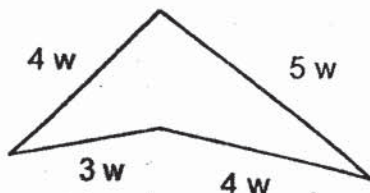
5. The figure below shows a rectangle with shaded stripes. Find the area of the shaded parts.



Ans : \_\_\_\_\_  $\text{cm}^2$

For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

6. Gabriel had a piece of wire 150 cm long. He used part of the wire to make a figure show below.



- (a) Express the length of remaining wire in terms of  $w$  in the simplest form.
- (b) Gabriel used the remaining wire to form an equilateral triangle. If  $w = 6$ , find the length of one side of the equilateral triangle.

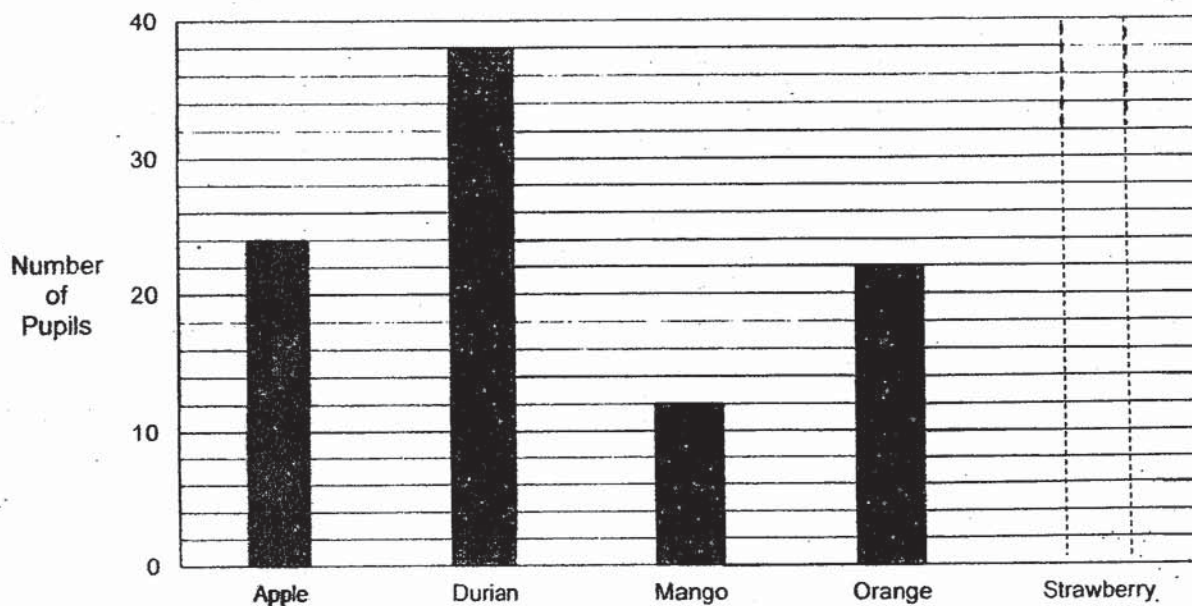
Ans : (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

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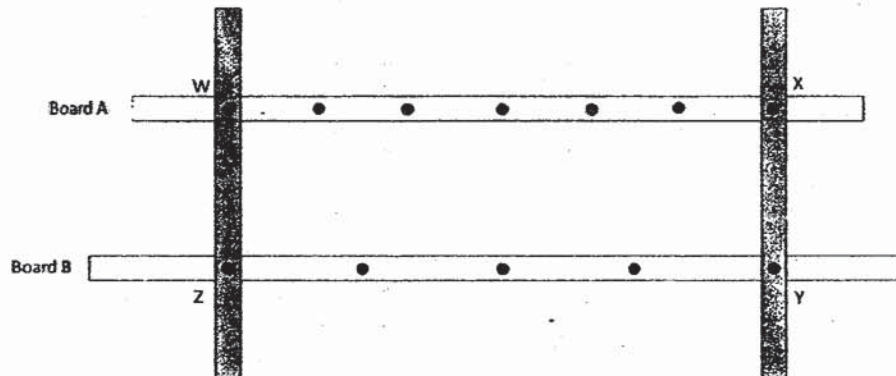
7. A group of pupils were asked to choose their favourite fruits. The results are shown in the graph below. The bar that shows the number of pupils who chose strawberry has not been drawn.



- (a) What is the ratio of the number of pupils who chose Apple to the total number of pupils who chose Durian, Mango and Orange?
- (b)  $\frac{1}{4}$  of the pupils chose strawberry. Draw the bar that shows the number of pupils who chose strawberry in the graph above. [2]

Ans : (a) \_\_\_\_\_ [1]

8. 4 wooden boards were nailed together as shown in the picture below. Board A has 7 holes which divides it into 8 equal parts and Board B has 5 holes which divides it into 6 equal parts. Holes W, X, Y and Z are four corners of a rectangle.



Given that Board B is 270 cm long, what is the length of Board A?

Ans \_\_\_\_\_ [3]

7

Sub-Total

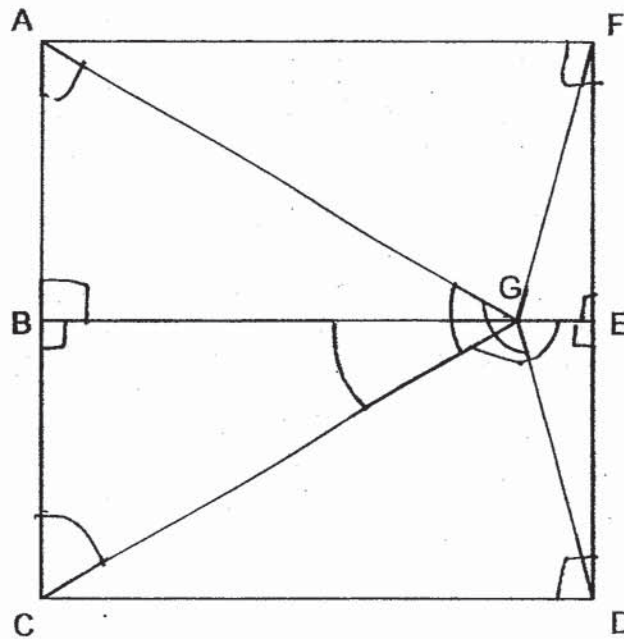
9. Lincoln and Mandy started jogging from the same point. Mandy started jogging 4 minutes earlier than Lincoln. Lincoln's jogging speed was 400 m/min and Mandy's jogging speed was 300 m/min. They went in the same direction and did not change their speeds throughout.

What distance would Mandy have jogged when Lincoln caught up with her?

Ans : \_\_\_\_\_ [3]



10. In the figure below  $ACDF$  is a square.  $AC$  is perpendicular to  $BE$ .  $AG = BE = CG$ . Find  $\angle AGD$ .



Ans : \_\_\_\_\_ [3]

11. Four students completed a quiz. They had to answer as many questions as possible within a given time. 5 points were awarded for each correct answer but 2 points were deducted for each wrong answer. The table shows the number of correct and wrong answers obtained by three of the students.

Student	Questions	
	Correct	Wrong
A	24	11
B	25	14
C	22	8

- (a) Which of the three students scored the most number of points? What was the student's points?
- (b) Student D attempted the same number of questions as Student C but obtained 21 points more. How many questions did student D answer correctly?

Ans : (a) student \_\_\_\_\_

Points: \_\_\_\_\_ [2]

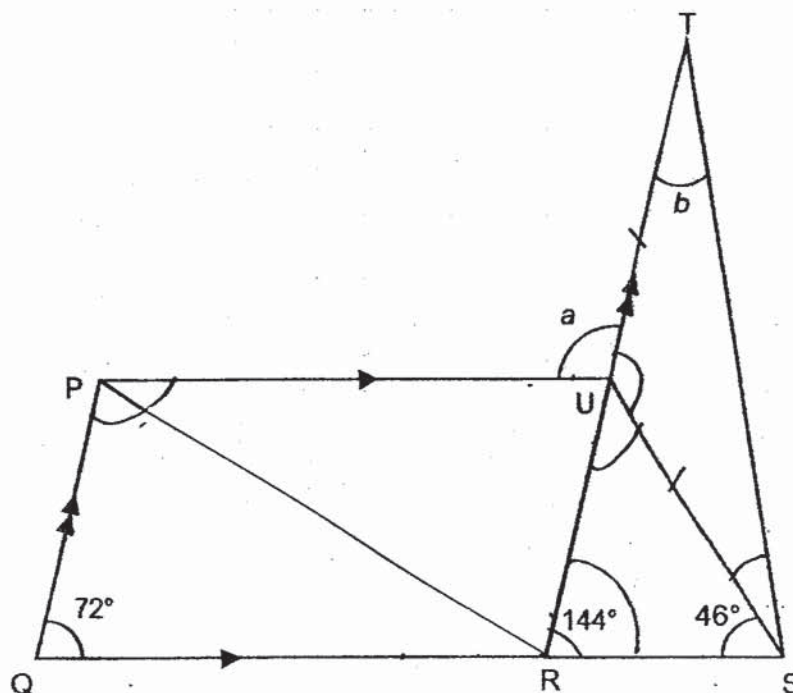
(b) \_\_\_\_\_ [2]

12. In the figure below, PQSU is a trapezium, PQRU is a parallelogram and SUT is an isosceles triangle.  $\angle PQR = 72^\circ$ ,  $\angle PRS = 144^\circ$  and  $\angle RSU = 46^\circ$ .

Find

(a)  $\angle a$

(b)  $\angle b$



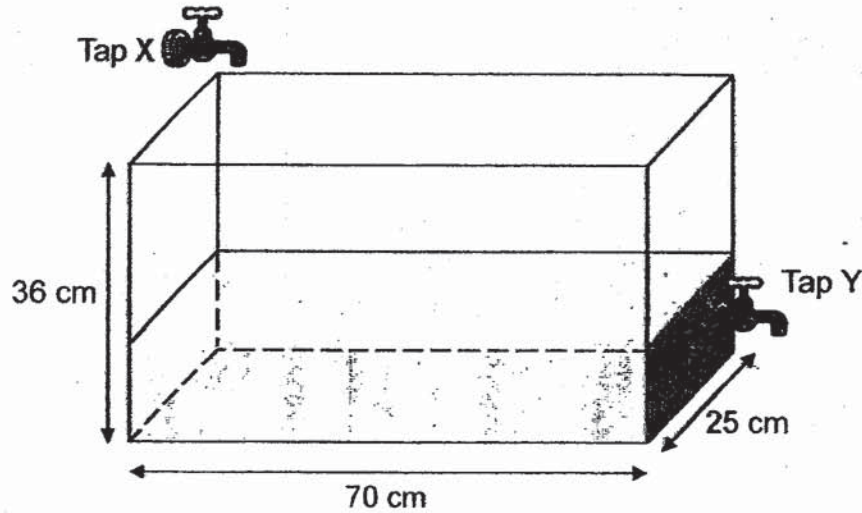
Ans : (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

13. Ms Teo made some muffins to sell.  $\frac{4}{5}$  of them were chocolate muffins and the rest were blueberry muffins. After selling 84 blueberry muffins and  $\frac{5}{8}$  of the chocolate muffins, she had  $\frac{2}{5}$  of the muffins left. How many muffins did Ms Teo sell?

Ans : \_\_\_\_\_ [4]

14. A tank measuring 36 cm by 70 cm by 25 cm was  $\frac{1}{3}$  filled with water at first. Tap X and Y were turned on at the same time. Water was flowing out from Tap Y at a rate of  $750 \text{ cm}^3$  per minute. It took 30 minutes to fill the tank to the brim.



- (a) How much more water was needed to fill the tank to the brim at first?
- (b) How much water was flowing into the tank from Tap X per minute? Leave your answer in  $\text{cm}^3$ .

Ans : (a) \_\_\_\_\_ {1}

(b) \_\_\_\_\_ {3}

15. The figures below are made up of shaded and unshaded squares

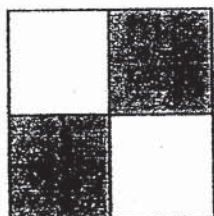


Figure 1

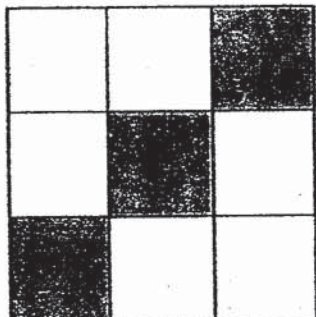


Figure 2

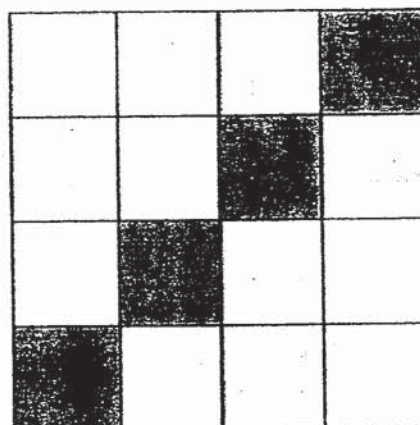


Figure 3

(a) Fill in the missing blanks for (i) and (ii)

Figure	Number of shaded squares	Number of unshaded squares	Total number of squares
1	2	2	4
2	3	6	9
3	4	12	16
4	5	(i)	(ii)

[1]

(b) Find the number of unshaded squares in figure 40.

(c) Which figure has 380 unshaded squares?

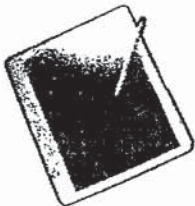
Ans : (b) \_\_\_\_\_ [2]

(c) \_\_\_\_\_ [2]

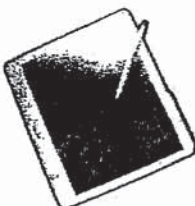


16. Jia Ming paid \$960 for two tablets by using the E-fair Savings Coupon shown below. If he had not used the E-fair Savings Coupon, how much more would he have had to pay for the two tablets?

### E-Fair Savings Coupon



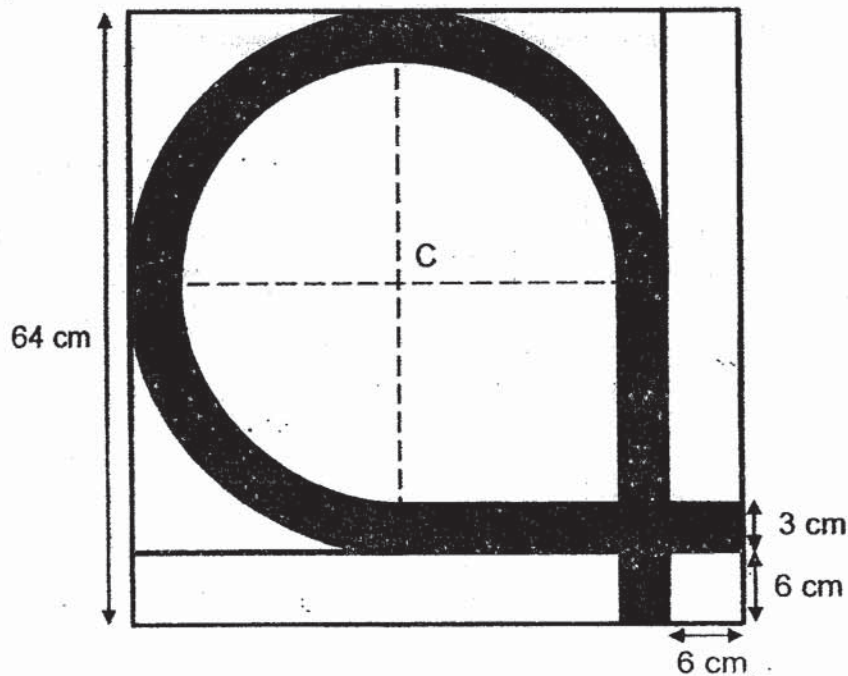
First tablet at 30% discount



Second tablet at 50% discount

Ans : \_\_\_\_\_ [4]

17. A square piece of paper of side 64 cm has a design on it. The design is made by a 3 cm wide shaded strip. The outline of the design is made up of quarter circles with the center  $C$  and straight lines. All straight lines meet at right angles. Find the area of the shaded part.  
(Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ [5]

End of Paper 2





# ANSWER KEY

**YEAR :** 2018  
**LEVEL :** PRIMARY 6  
**SCHOOL :** ANGLO-CHINESE (JUNIOR/PRIMARY)  
**SUBJECT :** MATHEMATICS  
**TERM :** SA1

## Paper 1

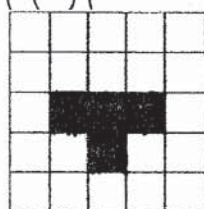
Q1	3	Q4	4	Q7	1	Q10	2	Q13	4
Q2	3	Q5	3	Q8	2	Q11	4	Q14	4
Q3	4	Q6	2	Q9	1	Q12	4	Q15	2

Q16  $6\frac{9}{20}$

Q17  $1\frac{8}{21}$

Q18  $82^\circ$

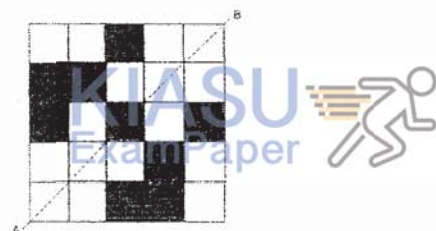
Q19



Q20 \$64.20

Q21 112 marbles

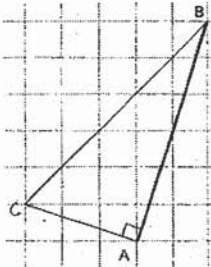
Q22



Q23  $60^\circ$

Q24 \$62

Q25



Q26 .0745

Q27 600 ml

Q28

Statement	True	False	Not possible to tell
All the men are heavier than the women.			✓
The average mass of the women is less than 60kg	✓		

Q29  $\frac{6}{17}$

Q30  $2\frac{2}{9}$  min

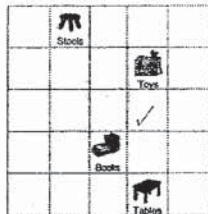
### Paper 2

Q1  $370 - 344 \Rightarrow \underline{26}$

Q2  $3u \rightarrow 2.4$   
 $5u \rightarrow \frac{5}{3} \times 2.4 \Rightarrow \underline{4 \text{ kg}}$

Q3 (a) South

(b)



Q4  $4 + 1.4 = 5.4$

$$0.70 - 0.50 = 0.20$$

$$5.4 \div 0.2 = 27$$

$$27 + 8 \Rightarrow \underline{35 \text{ rulers}}$$

Q5 Area of shaded parts  $\rightarrow 12 + 36 + 60 + 84 \Rightarrow \underline{192 \text{ cm}^2}$

Q6

(a)

Remaining wire

$$\begin{aligned} &\rightarrow 150 - 16w \\ &= 150 - (16 \times 6) \\ &= 150 - 96 \\ &= 54 \approx \underline{(150 - 16w) \text{ cm}} \end{aligned}$$

(b)

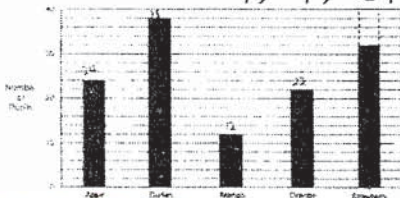
$$54 \div 3 \Rightarrow \underline{18 \text{ cm}}$$

Q7

(a)

1 : 3

(b)



**KIASU**  
ExamPaper

Q8  $6u \rightarrow 270$

$$4u \rightarrow \frac{4}{6} \times 270 = 180$$

$$6p \rightarrow 180$$

$$8p \rightarrow \frac{8}{6} \times 180 \Rightarrow \underline{240 \text{ cm}}$$

Q9  $300 \times 4 = 1200$

$$1200 \div (400 - 300) = 12$$

$$12 \times 400 \Rightarrow \underline{4800 \text{ m}}$$

Q10  $\angle BCG = 60^\circ$

$$\angle GCD = 90^\circ \quad 60^\circ \rightarrow 30^\circ$$

$$\angle CGD = (180^\circ - 30^\circ) \div 2 \rightarrow 75^\circ$$

$$\angle AGD = 75^\circ + 60^\circ \Rightarrow \underline{135^\circ}$$

Q11 (a) Student : A  
Points : 98

(b) 25 questions

Q12 (a)  $\angle a \rightarrow 180^\circ - 72^\circ \Rightarrow \underline{108^\circ}$

(b)  $\angle b \rightarrow (180^\circ - 118^\circ) \div 2 \Rightarrow \underline{31^\circ}$

Q13  $\frac{4}{8} \times \frac{5}{8} = \frac{1}{2}$

$$1 - \frac{2}{5} - \frac{1}{2} = 10$$

$$\frac{1}{10} \rightarrow 84$$

$$\frac{1}{2} \rightarrow 420$$

$$420 + 84 \Rightarrow \underline{504 \text{ muffins}}$$



Q14 (a) Volume of tank  $\rightarrow 36 \times 70 \times 25 = 63000 \text{ ml}$

$$\frac{1}{3} \times 63000 = 21000$$

$$63000 - 21000 \Rightarrow \underline{42000 \text{ ml}}$$

(b) Outflow  $= 750 \times 30 = 22500 \text{ cm}^3$   
 $22500 + 42000 = 64500 \text{ cm}^3$   
 $64500 \div 30 \Rightarrow \underline{2150 \text{ cm}^3}$

Q15 (a) (i) 20

(ii) 25

(b) 1640

(c) 19

Q16.  $7u + 5u = 12u$

$$12u = 960$$

$$1u = 80$$

$$20u = 1600$$

$$1600 - 960 \Rightarrow \underline{\$640}$$

Q17  $129.525 \times 3 + 156 + 9 + 36 \Rightarrow \underline{589.575 \text{ cm}^2}$





Name: \_\_\_\_\_ (      )

Class: Primary 6 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



**Primary 6 Mathematics**

**2018 Semestral Assessment One**

**Paper 1**

**Booklet A**

**8 May 2018**

**15 questions  
20 marks**

**Total Time for Booklets A and B : 1 hour**

**INSTRUCTIONS TO CANDIDATES**

Do not turn over this page until you are told to do so.  
Follow all instructions carefully.  
Answer all questions.  
Shade your answers in the Optical Answer Sheet (OAS) provided.  
The use of calculators is **NOT** allowed.

This booklet consists of 8 printed pages including the cover page.



Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3, or 4) on the Optical Answer Sheet.

(20 marks)

---

1. Round 649 098 to the nearest thousand.

- (1) 649 000
- (2) 649 090
- (3) 649 100
- (4) 650 000

2. Which one of the following is one hundred and five thousand and eleven written in figures?

- (1) 1 005 011
- (2) 105 011
- (3) 100 511
- (4) 10 541

3. Bosco had 90 game cards. He gave 40p game cards to his brother.  
The remaining game cards were then divided equally among his 3 friends.  
How many game cards did each of his friends receive?

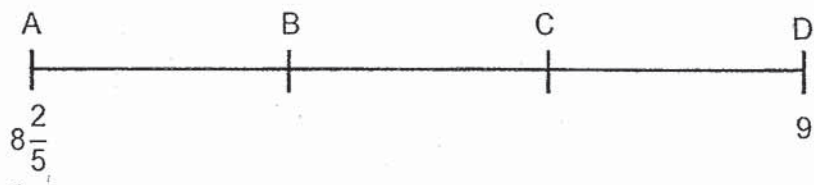
- (1)  $(\frac{50p}{3})$
- (2)  $(\frac{90 - 40p}{3})$
- (3)  $(90 - \frac{40p}{3})$
- (4)  $(90 - 40p)$

4. The table below shows the timing taken by 4 boys to run 800 m before and after a month of training. Which boy made the most improvement in his timing?

Name	Timing taken before training (in seconds)	Timing taken after training (in seconds)
Choon Tat	125	114
Faris	132	136
Lincoln	136	117
Siva	127	129

- (1) Choon Tat
- (2) Faris
- (3) Lincoln
- (4) Siva

5. In the number line below,  $AB = BC = CD$ . Find the value of C.

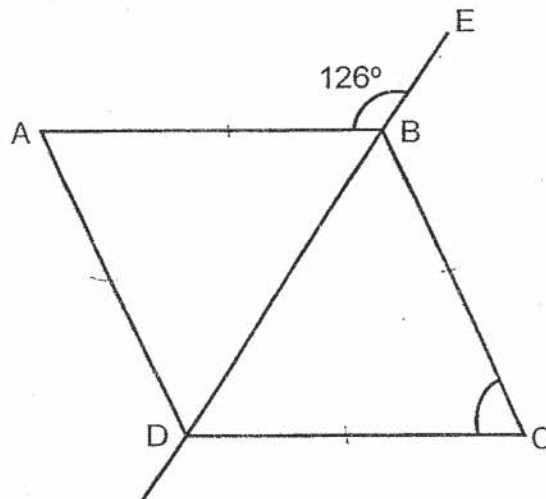


- (1) 8.50
- (2) 8.60
- (3) 8.80
- (4) 8.90

6. Patsy, Lina and Kai.Shin shared a sum of money in the ratio 2 : 5 : 6. Lina had \$70.  
How much more money did Kai Shin have than Patsy?

- (1) \$84
- (2) \$56
- (3) \$28
- (4) \$14

7. In the figure below, ABCD is a rhombus. DBE is a straight line. Find  $\angle BCD$ .

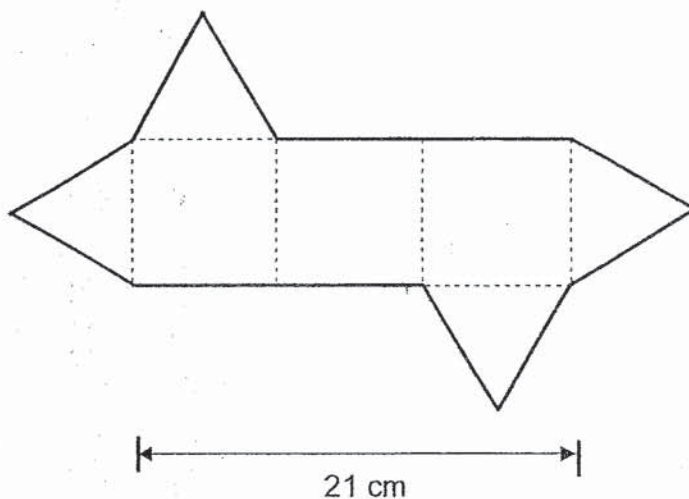


- (1)  $54^\circ$
- (2)  $63^\circ$
- (3)  $72^\circ$
- (4)  $81^\circ$

8. Nizam spent \$400 last month. He spent \$500 this month. Find the percentage increase in his spending this month.

- (1) 20%
- (2) 25%
- (3) 75%
- (4) 125%

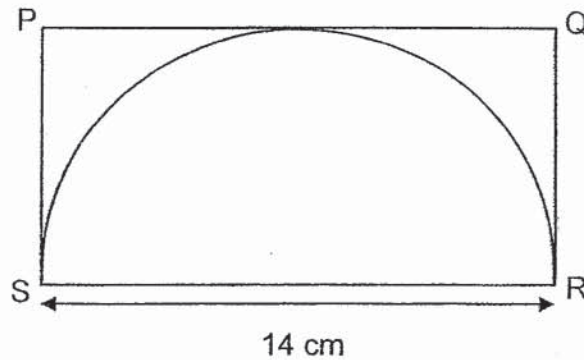
9. The figure below is made up of 4 identical equilateral triangles and 3 identical squares. Find the perimeter of the figure.



- (1) 168 cm
- (2) 126 cm
- (3) 98 cm
- (4) 84 cm



10. PQRS is a rectangle. Find the area of the semicircle. (Take  $\pi = \frac{22}{7}$ )



- (1) 308 cm<sup>2</sup>
  - (2) 154 cm<sup>2</sup>
  - (3) 77 cm<sup>2</sup>
  - (4) 22 cm<sup>2</sup>
11. Lee Sheng has \$270 in his wallet. He has only \$2 and \$5 notes. The number of \$2 notes is twice the number of \$5 notes. Find the total value of the \$2 notes.

- (1) \$60
- (2) \$90
- (3) \$120
- (4) \$150

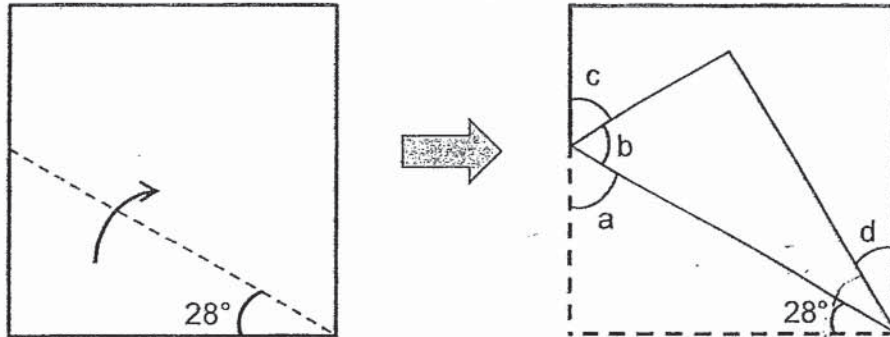
12. Jean and Devi spent an average amount of \$1208 on a trip. Jean spent \$200 less than Devi. How much did Devi spend?

- (1) \$504
- (2) \$704
- (3) \$1108
- (4) \$1308

13. Freda had some stickers. She gave  $\frac{1}{6}$  of the stickers to Breanne and  $\frac{4}{5}$  of the remainder to Nicolette. She gave 102 stickers to Breanne. How many stickers did she give to Nicolette?

- (1) 510
- (2) 408
- (3) 306
- (4) 204

14. The figure below shows a square piece of paper that has been folded along the dotted line. Which one of the marked angles has a value of  $56^\circ$ ?



- (1)  $\angle a$   
 (2)  $\angle b$   
 (3)  $\angle c$   
 (4)  $\angle d$
15. Conrad had some blueberry tarts and kiwi tarts. After selling  $\frac{5}{6}$  of his blueberry tarts and  $\frac{3}{7}$  of his kiwi tarts, he had the same number of blueberry tarts and kiwi tarts left. Find the ratio of the number of blueberry tarts to the number of kiwi tarts Conrad had at first.

- (1) 1 : 3  
 (2) 5 : 3  
 (3) 24 : 7  
 (4) 35 : 18

\*\* End of Booklet A \*\*

Name: \_\_\_\_\_ ( )

Class: Primary 6 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



**Primary 6 Mathematics**

**2018 Semestral Assessment One**

**Paper 1**

**Booklet B**

**8 May 2018**

**15 questions  
25 marks**

Booklet A	20
Booklet B	25
Total (Paper 1)	45

**Total Time for Booklets A and B : 1 hour**

**INSTRUCTIONS TO CANDIDATES**

Do not turn over this page until you are told to do so.  
Follow all instructions carefully.  
Answer all questions.  
Write your answers in this booklet.  
The use of calculators is **NOT** allowed.

This booklet consists of 11 printed pages including the cover page.

Questions 16 to 20 carry 1 mark each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

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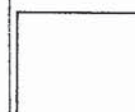
16. Simplify  $11e - (3e - e) + 6 + e$ .

Ans : \_\_\_\_\_

17. The product of two fractions is  $\frac{5}{6}$ . One of the fractions is  $\frac{6}{7}$ .

What is the other fraction?

Ans : \_\_\_\_\_



18. Find the value of  $3 \div 7$ .  
Express your answer as a decimal to 2 decimal places.

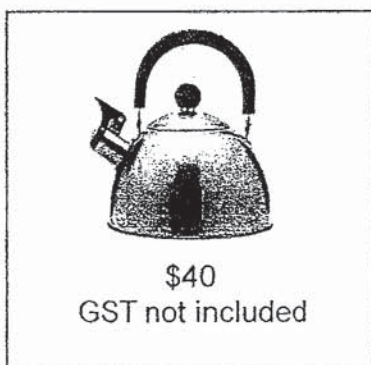
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Ans: \_\_\_\_\_

19. Mayson's height is  $\frac{9}{8}$  of Junkai's height. Mayson is 144 cm tall. How tall is Junkai?

Ans : \_\_\_\_\_

20. Mrs Yeh bought a kettle. The price of the kettle was \$40. She had to pay 7% GST. How much GST did she pay?



Ans : \$ \_\_\_\_\_

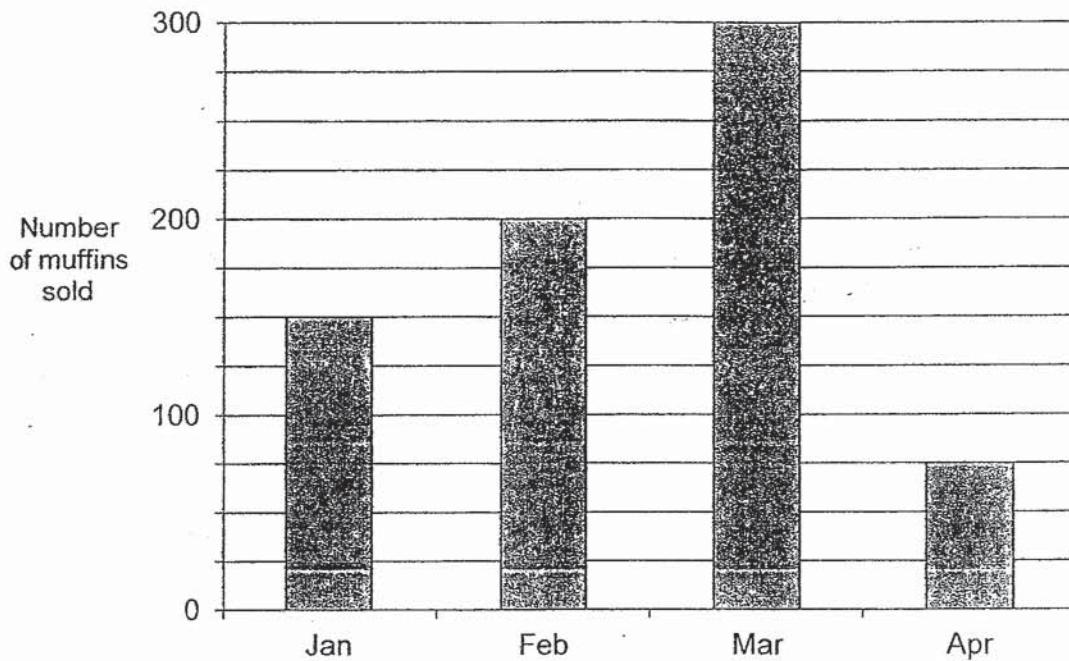




Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Do not write in this space

21. The bar graph below shows the number of muffins sold by Muffy Bakery from January to April.



- (a) In which month did Muffy Bakery sell half as many muffins as in March?  
(b) Write down all the months in which Muffy Bakery sold more than 150 muffins.

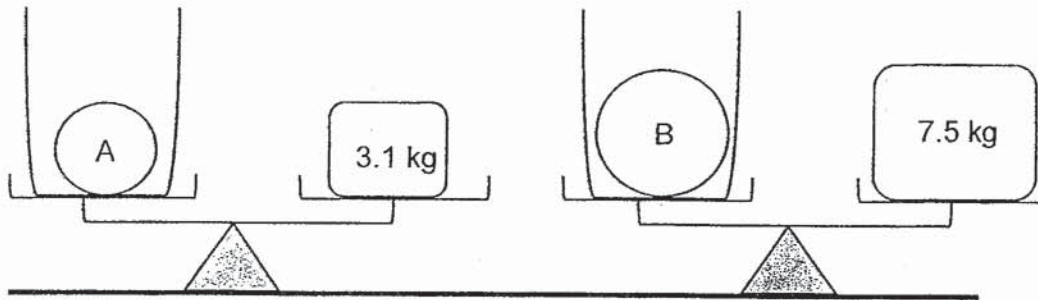
Ans : (a) \_\_\_\_\_

(b) \_\_\_\_\_



22. A container with Object A has a mass of 3.1 kg. The same container with Object B has a mass of 7.5 kg. Object B is 3 times as heavy as Object A. Find the mass of Object A.

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Ans : \_\_\_\_\_ kg



23. The table below shows taxi fares.

Meter fare	
First 2 km or less	\$3.50
Every 400 m thereafter or less	\$0.30

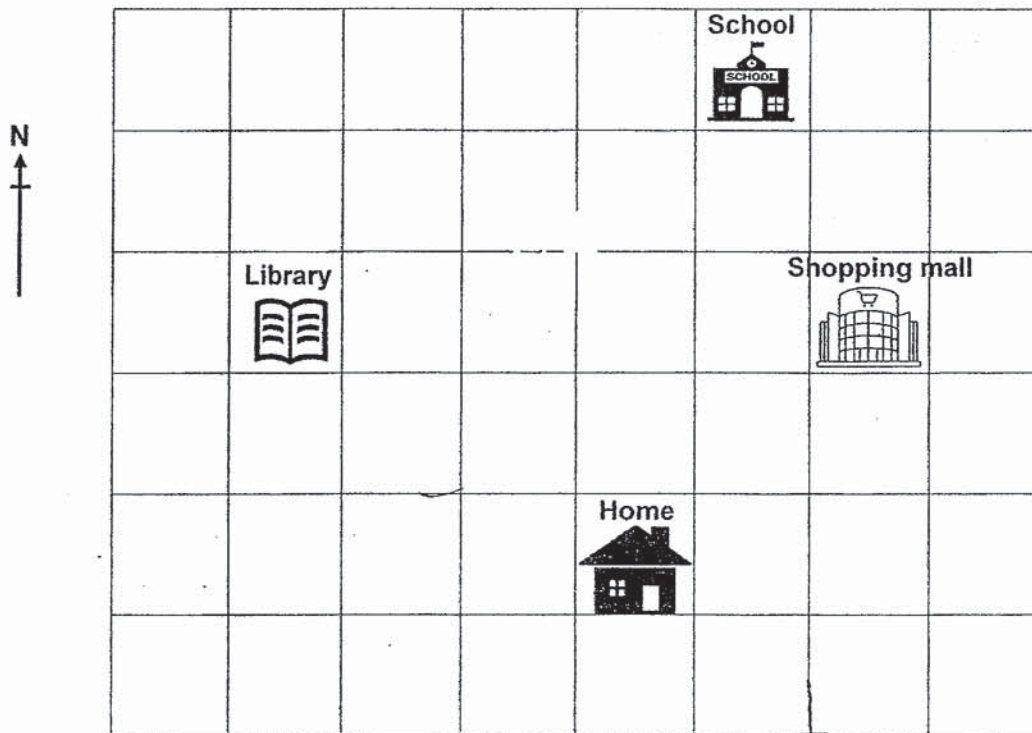
Aiasha travelled 5.6 km by taxi. How much did she pay?

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Ans : \$ \_\_\_\_\_

24. Elenor's home, the library, the shopping mall and her school are located as shown in the square grid below.

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- (a) In what direction is the shopping mall from Elenor's home?
- (b) A new swimming complex will be built at a location south-east of the library and south-west of the school. Put a tick ( ✓ ) in the square where the new swimming complex will be built.

Ans : (a) \_\_\_\_\_

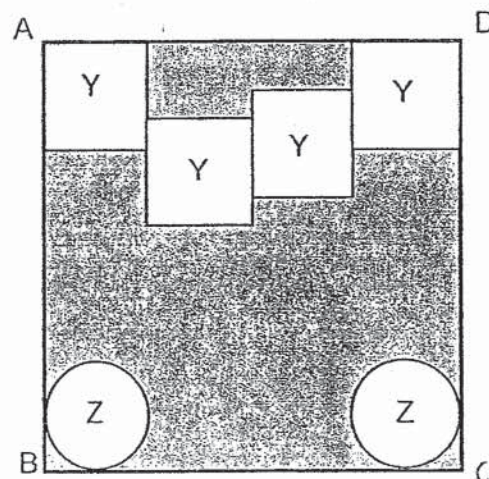


25. The table below shows the age of 4 girls. Whose age is the nearest to their average age?

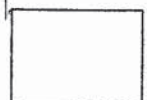
Name	Age (years)
Kelly	15
Huili	13
Dily	19
Christy	16

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26. In the figure below, four identical squares Y and two circles Z lie within a large square ABCD. The area of square Y is equal to the area of circle Z. What fraction of the square ABCD is shaded?



Ans : \_\_\_\_\_



27. A box contains silver, gold and black buttons. There are 630 silver buttons. The ratio of the number of gold buttons to the total number of buttons in the box is 2 : 9. There is an equal number of gold and black buttons. How many gold and black buttons are there altogether?

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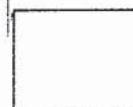
Ans : \_\_\_\_\_

28. At the end of a school term, the number of junior players in a water polo team decreased by 20% to 40. Another 35 senior players joined the team and there were 145 junior and senior players altogether.

- (a) Did the overall percentage in the membership increase, decrease or remain the same?
- (b) How many players were there altogether at first?

Ans : (a) \_\_\_\_\_

(b) \_\_\_\_\_

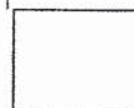




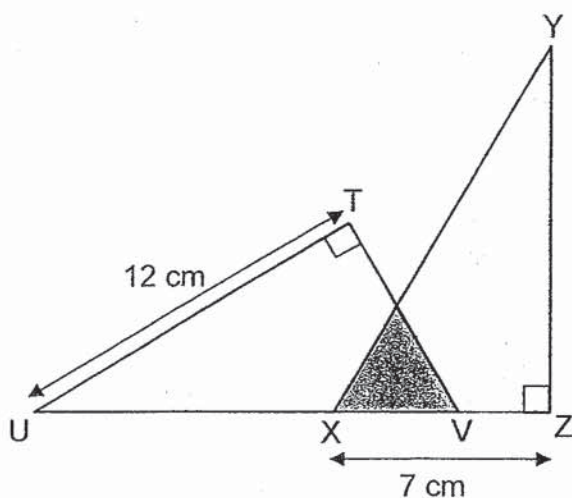
29. Two numbers add up to 581. One of them is a 2-digit number and the other is a 3-digit number. What is the smallest possible difference between the two numbers?

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Ans : \_\_\_\_\_

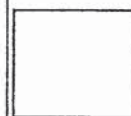


30. In the figure below, TUV and XYZ are identical right-angled triangles. The total area of the unshaded parts is  $68 \text{ cm}^2$ . Find the area of the shaded part.



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Ans : \_\_\_\_\_  $\text{cm}^2$



\*\* End of Booklet B \*\*

Name: \_\_\_\_\_ (      )

Class: Primary 6 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



**Primary 6 Mathematics**

**2018 Semestral Assessment One**

**Paper 2**

**8 May 2018**

Paper 1	45
Paper 2	55
Total	100

\_\_\_\_\_  
**Parent's / Guardian's Signature**

**17 questions**  
**55 marks**

**Time: 1 hour 30 minutes**

**INSTRUCTIONS TO CANDIDATES**

Do not turn over this page until you are told to do so.  
Follow all instructions carefully.  
Answer all questions.  
Write your answers in this booklet.  
The use of an approved calculator is expected, where appropriate.

This booklet consists of 16 printed pages including the cover page.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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1. A packet of nougats cost \$16. Helen bought 4 packets of nougats and 3 packets of mixed nuts. She found that she could buy 5 packets of mixed nuts with the same amount of money. How much did each packet of mixed nuts cost?

Ans : \$ \_\_\_\_\_

2. A coat cost 3 times as much as a dress. The dress cost \$25 more than a wallet. Kieran paid \$352.50 for these three items. How much did the wallet cost?

Ans : \$ \_\_\_\_\_



3. At Cafelicious Coffee House, the ratio of the price of a cup of coffee to the price of a cup of milo is 4 : 5. The price of a cup of tea is half the price of a cup of coffee. What is the ratio of the price of a cup of milo to the price of a cup of coffee to the price of a cup of tea?

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Ans : \_\_\_\_\_

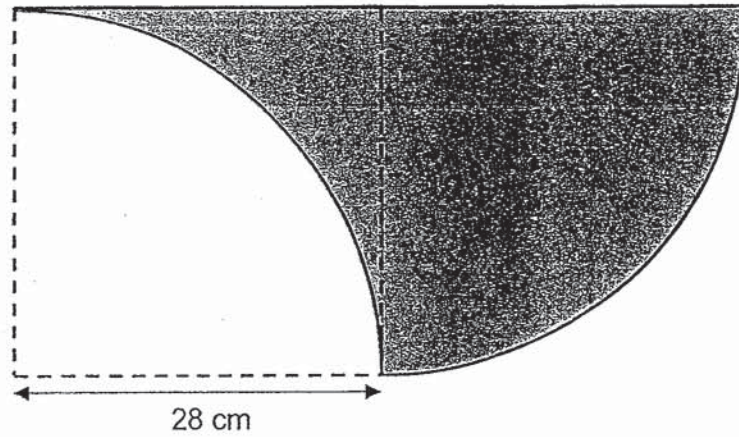
4. Nadia bought 2600 g of rambutans. She ate 200 g of the rambutans and gave  $\frac{1}{4}$  of the remainder to her friend. What was the mass of rambutans she had left?

Ans : \_\_\_\_\_ g

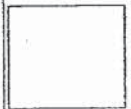


5. The figure below is made up of 2 identical quarter circles and a square. Find the perimeter of the shaded part. (Take  $\pi = 3.14$ )

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Ans : \_\_\_\_\_ cm






For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

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6. At Chee Kee Curry Puff stall, the price of a curry puff is \$1.50. For every 4 curry puffs bought, the stall gives away 1 curry puff free.



Buy 4 curry puffs  
and get another 1  
**FREE**

\$1.50 per curry puff

- (a) Wenlong wants to get 7 curry puffs. How much will he have to pay?  
(b) Alison has \$50. What is the greatest number of curry puffs she can get?

Ans : (a) \_\_\_\_\_ [1]

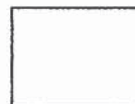
(b) \_\_\_\_\_ [2]



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7. Mr Seet had a number of highlighters for sale.  $\frac{2}{5}$  of the highlighters were red and the rest were yellow. Mr Seet sold  $\frac{1}{2}$  of the total number of highlighters.  $\frac{3}{4}$  of the red highlighters were sold. 104 yellow highlighters were left. How many red highlighters did Mr Seet sell?

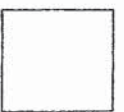
Ans : \_\_\_\_\_ [3]




8. At a fruit stall, Shona paid \$20.40 for a durian and 6 pears. Jillisa paid \$31.20 for a durian and 15 pears. Richard bought 6 durians. How much did he pay?

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Ans : \_\_\_\_\_ [3]



9. Ian uses 1-cm cubes (  ) to form the figures below that follow a pattern.

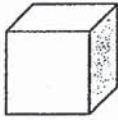


Figure 1

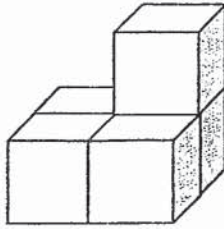


Figure 2

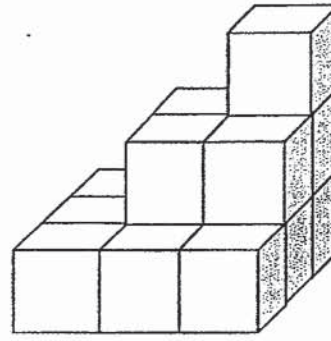


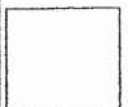
Figure 3

- (a) How many more cubes are needed to make Figure 4 than Figure 3?  
 (b) What is the difference between the total number of cubes in Figure 7 and Figure 9?

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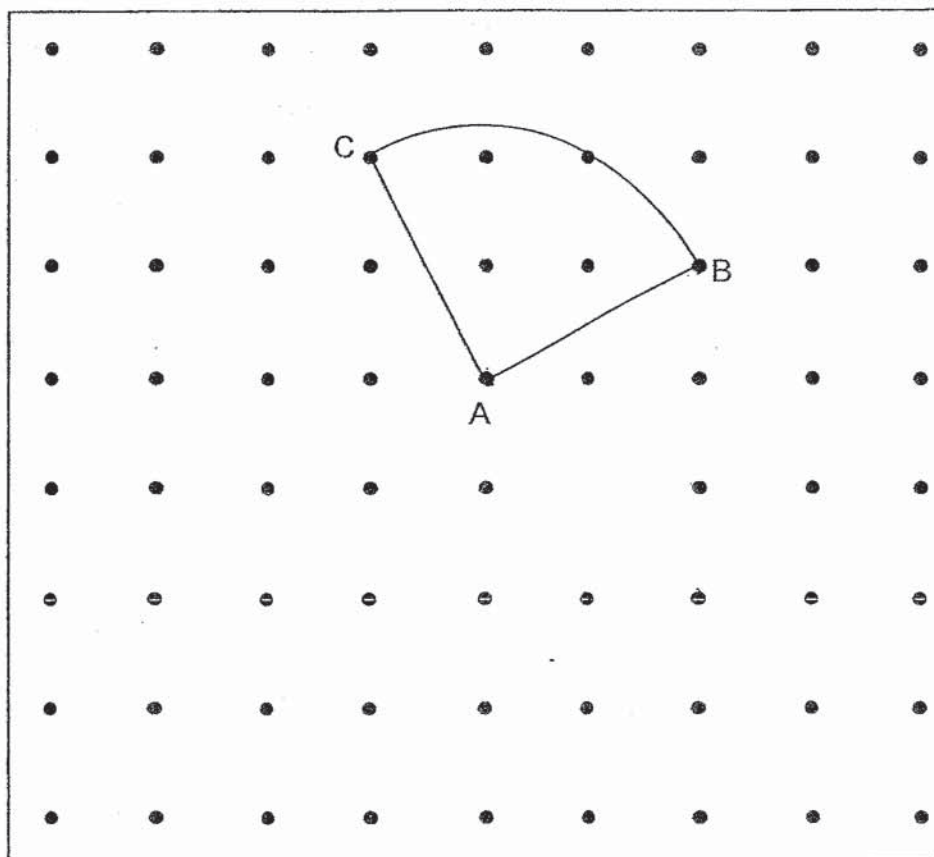
Ans : (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]



10. A quadrant is drawn inside a box.

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- (a) Measure and write down the length of line AB.  
 (b) D is one of the dots inside the box. Draw two lines AD and BD to complete an isosceles triangle ABD with  $AB = AD$ .  
 Label the triangle ABD.

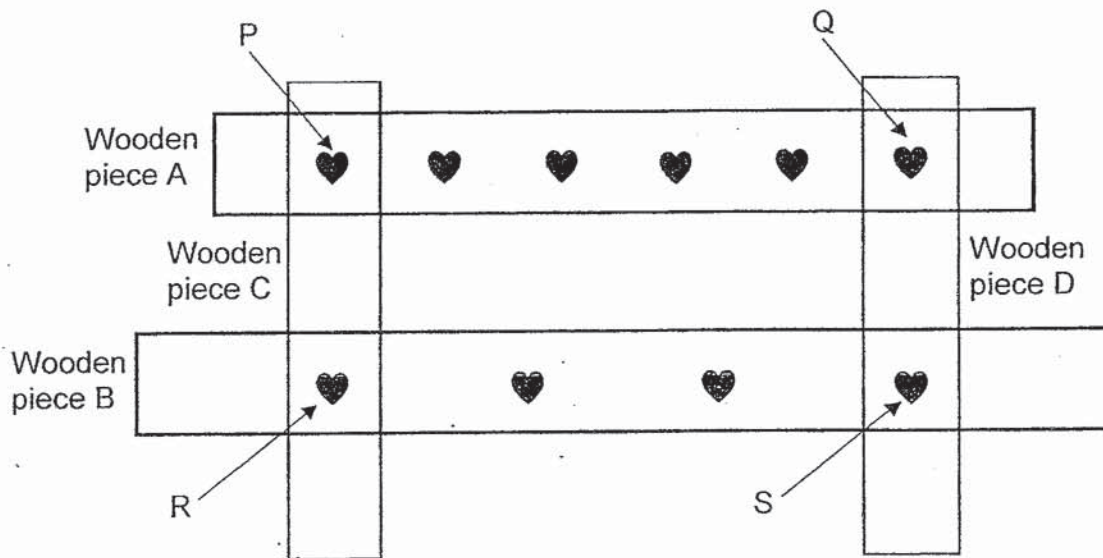
[2]

Ans : (a) \_\_\_\_\_ [1]

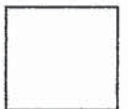


11. Lauren glued 4 wooden pieces A, B, C and D to make a photograph frame as shown below. She glued some beads on the wooden pieces. Wooden piece A had 6 beads which divided it into 7 equal parts. Wooden piece B had 4 beads which divided it into 5 equal parts. In the frame, the beads P, Q, R and S were four corners of a rectangle. Wooden piece A was 42 cm long. What was the length of wooden piece B?

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Ans : \_\_\_\_\_ [3]





12. Mrs Tan <sup>divided</sup> ~~shared~~  $24n$  cookies equally among her three children, Amelie, Brian and Dawei. Amelie ate 3 of her cookies and gave the rest to Dawei. Brian gave  $5n$  cookies to Dawei. Dawei ate  $3n$  of his cookies.

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- (a) How many cookies did Dawei receive from his siblings? Give your answer in terms of  $n$ .
- (b) If  $n = 4$ , how many cookies did Dawei have left in the end?

Ans : (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



13. Haafizah bought a coffee maker for \$227.50 after a 35% discount.
- (a) What was the price of the coffee maker before the discount?
- (b) She then bought an oven for \$120. The total discount for the two items was \$152.50. What was the percentage discount given for the oven?

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Ans : a) \_\_\_\_\_ [1]

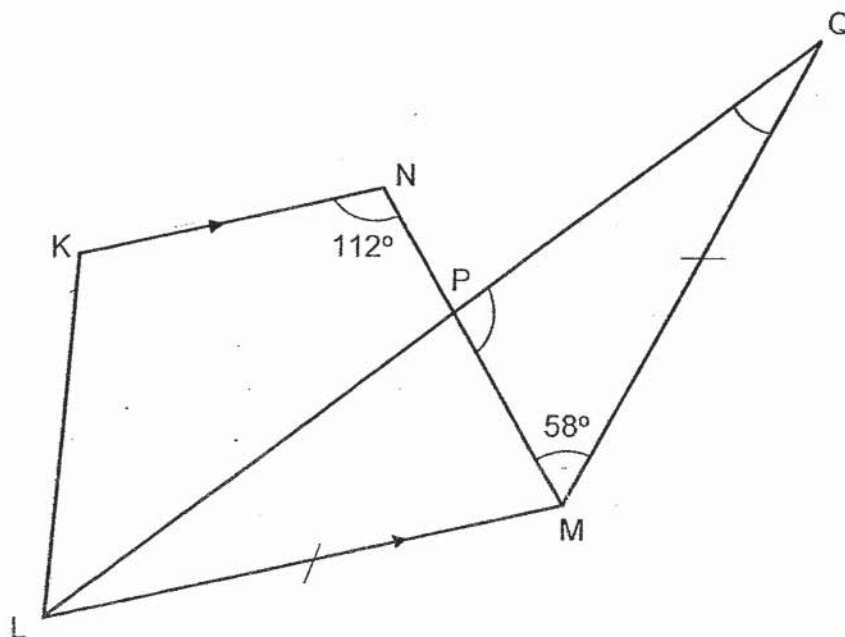
b) \_\_\_\_\_ [3]



14. In the figure below, KLMN is a trapezium and LMQ is an isosceles triangle. LPQ is a straight line.  $KN \parallel LM$  and  $LM = MQ$ .  $\angle KNM = 112^\circ$  and  $\angle PMQ = 58^\circ$ .

(a) Find  $\angle LQM$ .

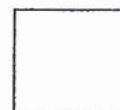
(b) Find  $\angle MPQ$ .



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Ans : (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

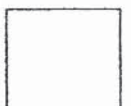


15. Tina wants to make 20 identical bracelets and 36 identical necklaces using beads. She has made 18 bracelets and 10 necklaces using 480 beads. The number of beads she used for 5 necklaces is the same as that for 7 bracelets.
- (a) How many bracelets can be made with the same number of beads used to make 10 necklaces?
- (b) Find the total number of beads Tina will need to make the remaining bracelets and necklaces.

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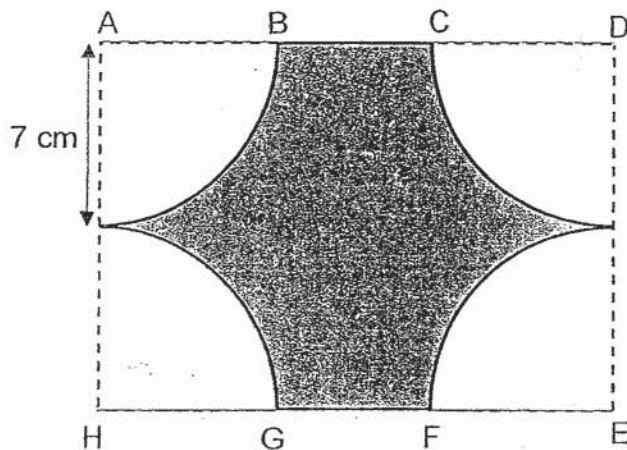
Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [4]

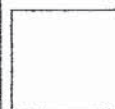


16. In the figure below, ADEH is a rectangular cardboard. Four identical quarter circles with radius 7 cm, have been cut from it as shown below. The remaining cardboard, which is the shaded part, has an area of  $98 \text{ cm}^2$ . Using  $\pi = \frac{22}{7}$ , find the length of BC.

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write  
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space



Ans : \_\_\_\_\_ [5]



17. Kathleen had some money at first. She spent  $\frac{1}{5}$  of it on a watch and  $\frac{2}{3}$  of it on a handbag. After that, her grandparents gave her \$171. The ratio of the total amount of money she had at the end to the amount of money she had at first was 7 : 5. How much money did Kathleen have at first?

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Ans : \_\_\_\_\_ [5]



\*\* End of Paper \*\*





# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : CHIJ ST NICHOLAS GIRLS'  
 SUBJECT : MATHEMATICS  
 TERM : SA1

## Paper 1

Q1	1	Q4	3	Q7	3	Q10	3	Q13	2
Q2	2	Q5	3	Q8	2	Q11	3	Q14	3
Q3	2	Q6	2	Q9	4	Q12	4	Q15	3

Q16 107.6

Q17  $\frac{35}{36}$

Q18 0.43

Q19 128 cm

Q20 \$2.80

Q21 (a) January

(b) February and March

Q22 2.2 kg

Q23 \$6.20

Q24 (a) North-east

(b) amPaper



Q25 Christy

Q26  $\frac{5}{8}$

Q27 504 gold and black buttons

Q28 (a) increase

(b) 120 players

Q29 383

Q30  $8 \text{ cm}^2$

Paper 2

Q1  $\$16 \times 4 = \$64$   
 $\$64 \div 2 \Rightarrow \underline{\$32}$

Q2  $352.50 + 25 = 377.50$   
 $377.50 \div 5 = 75.50$   
 $75.50 - 25 \Rightarrow \underline{\$50.50}$

Q3  $4 \div 2 = 2$   
Milo : Coffee : Tea  
 $5 : 4 : 2$

Q4  $2600\text{g} - 200\text{g} = 2400\text{g}$   
 $2400\text{g} \div 4 = 600\text{g}$   
 $2400\text{g} - 600\text{g} \Rightarrow \underline{1800 \text{ g}}$

Q5 (a)  $\frac{1}{4} \times 3.14 \times 56 = 43.96$

$43.96 \times 2 = 87.92$

$87.92 + 28 + 28 \Rightarrow \underline{143.92 \text{ cm}}$



Q11  $6 \times 5 = 30$   
 $30 \div 3 = 10$   
 $10 \times 5 \Rightarrow \underline{50 \text{ cm}}$

Q12 (a)  $24n \div 3 = 18n$   
 $8n + 5n - 3 \Rightarrow \underline{13n - 3}$

(b)  $8n - 3n = 5n$   
 $5n + 13n - 3 = 18n - 3$   
 $(18 \times 4) - 3 \rightarrow 72 - 3 \Rightarrow \underline{69 \text{ cookies}}$

Q13 (a)  $100\% - 35\% = 65\% \text{ (paid)}$   
 $65\% \rightarrow \$227.50$   
 $1\% \rightarrow \$227.50 \div 65 = \$3.50$   
 $100\% \rightarrow \$3.50 \times 100 \Rightarrow \underline{\$350}$

(b)  $\$350 - \$227.50 = \$122.50$   
 $\$152.50 - \$122.50 = \$30$   
 $\$120 + \$30 = \$150$   
 $\frac{30}{150} \times 100\% \Rightarrow \underline{20\%}$

Q14 (a)  $\angle LMN \rightarrow 180^\circ - 112^\circ = 68^\circ$   
 $68^\circ + 58^\circ = 126^\circ$   
 $\angle LMQ \rightarrow 180^\circ - 126^\circ = 54^\circ$   
 $\angle LQM \rightarrow 54^\circ \div 2 \Rightarrow \underline{27^\circ}$

(b)  $180^\circ - 58^\circ - 27^\circ \Rightarrow \underline{95^\circ}$



Q15 (a)  $10 \div 5 = 2$   
 $2 \times 7 \Rightarrow \underline{14 \text{ bracelets}}$

(b)  $18B + 10N \rightarrow 480$   
 $18B + 14B \rightarrow 480$   
 $32B \rightarrow 480$   
 $1B \rightarrow 480 \div 32 = 15.$   
 $2B \rightarrow 2 \times 15 \Rightarrow 30$   
 $5N \rightarrow 7B$   
 $5N \rightarrow 7 \times 15 = 105$   
 $1N \rightarrow 105 \div 5 = 21$   
 $26N \rightarrow 26 \times 21 = 546$   
 $30 + 546 \Rightarrow \underline{576 \text{ beads}}$

Q16  $\frac{22}{7} \times 7 \times 7 = 154$   
 $154 + 98 = 252$   
 $252 \div 14 = 18$   
 $18 - 7 - 7 \Rightarrow \underline{4 \text{ cm}}$

Q17  $21 \text{ units} - 2 \text{ units} = 19 \text{ units}$   
 $19 \text{ units} = 171$   
 $1 \text{ unit} = 171 \div 19 \rightarrow 9$   
 $15 \text{ units} = 9 \times 16 \Rightarrow \underline{\$135}$

End







HENRY PARK PRIMARY SCHOOL  
2018 SEMESTRAL ASSESSMENT 1  
MATHEMATICS  
PRIMARY 6

PAPER 1  
(BOOKLET A)

Name: \_\_\_\_\_ (      )

Parent's Signature

Class: Primary 6 \_\_\_\_\_ / 6M \_\_\_\_\_

\_\_\_\_\_

Marks:

Paper 1	Booklet A	20
	Booklet B	25
Paper 2		55
Total		100

Total Time for Booklets A and B: 1 hour

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

You are **not** allowed to use a calculator.



Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.  
(20 marks)

---

1 Find the value of  $8 + 5 \times 8 - 6 \div 2$

- (1) 13
- (2) 21
- (3) 45
- (4) 49

2 How many sixths are there in  $3\frac{2}{3}$ ?

- (1) 11
- (2) 13
- (3) 20
- (4) 22

3 Which of the following is the same as 5080 g?

- (1) 5 kg 8 g
- (2) 5 kg 80 g
- (3) 50 kg 8 g
- (4) 50 kg 80 g

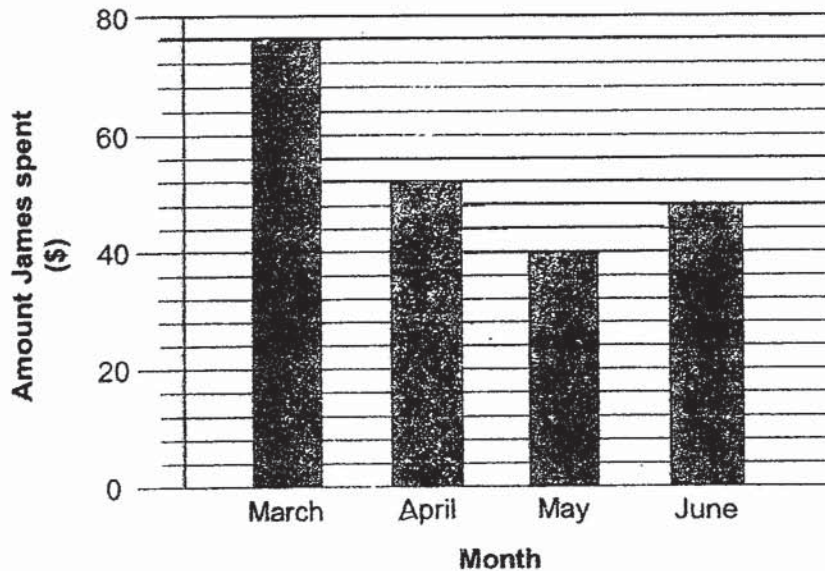
4 After donating 25% of his savings, Jack had \$60 of his savings left.  
How much money did he have in his savings at first?

- (1) \$75
- (2) \$80
- (3) \$105
- (4) \$240

(Go on to the next page)

Use the information below to answer Questions 5 and 6.

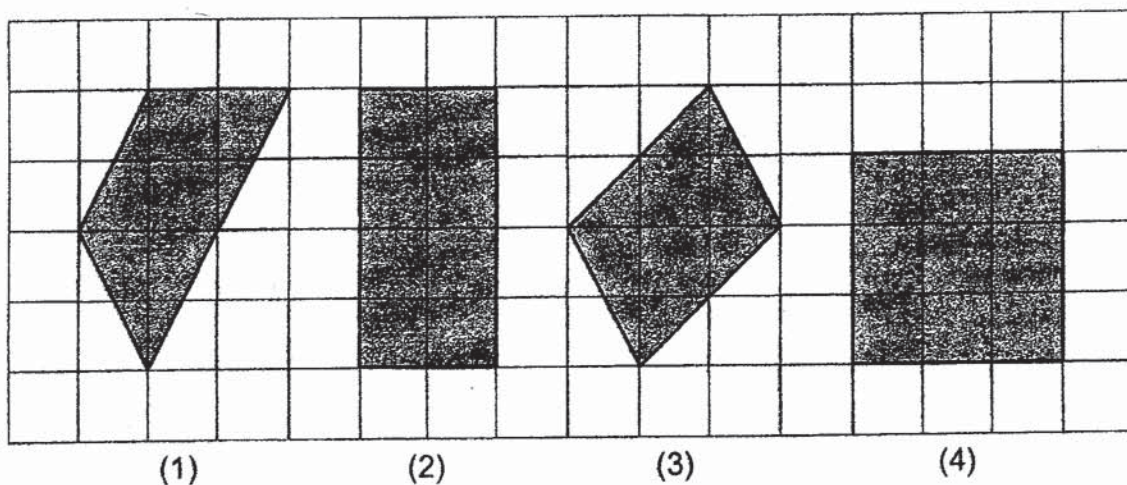
James received \$150 from his father each month as pocket money. The graph shows the amount of pocket money he spent each month from March to June.



- 5 In which month did James spend about half his pocket money?
- (1) March
  - (2) April
  - (3) May
  - (4) June
- 6 What is the average amount of money that James spent in each month from March to May?
- (1) \$42
  - (2) \$46
  - (3) \$54
  - (4) \$56

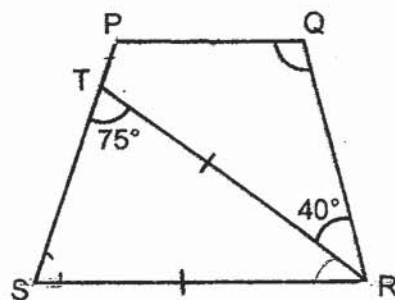
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- 7 The figures below are drawn on a square grid. Which one of the following figures is an example of a rhombus?



- 8 In the figure below, PQRS is a trapezium and  $RT = RS$ .  
PQ is parallel to SR. Find  $\angle PQR$ .

- (1)  $75^\circ$   
(2)  $105^\circ$   
(3)  $110^\circ$   
(4)  $140^\circ$

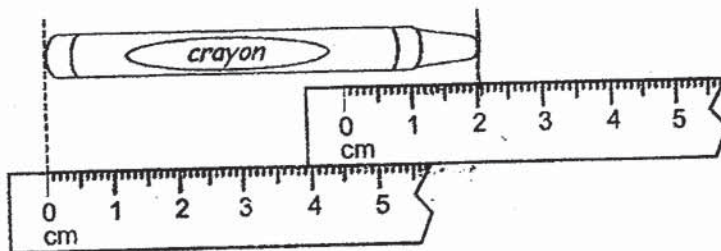


- 9 There are 16 girls in a class of 36 pupils. What is the ratio of the number of girls to the number of boys?

- (1) 4 : 5  
(2) 4 : 9  
(3) 5 : 4  
(4) 5 : 9

(Go on to the next page)

- 10 What is the length of the crayon shown in the figure below?

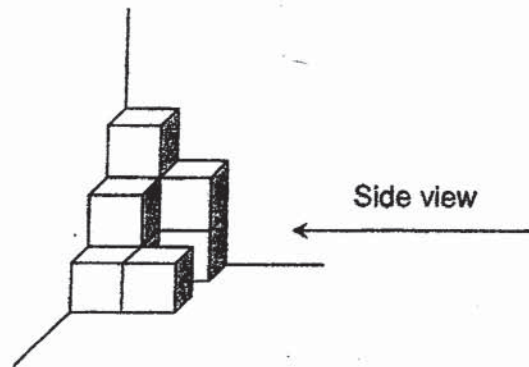


- (1) 6.0 cm  
(2) 6.5 cm  
(3) 6.7 cm  
(4) 7.0 cm
- 11 Aaron, Tom and Xavier had \$43.20 altogether. Aaron had 3 times as much money as Tom. Tom has twice as much money as Xavier. How much money did Tom have?
- (1) \$4.80  
(2) \$7.20  
(3) \$9.60  
(4) \$14.40

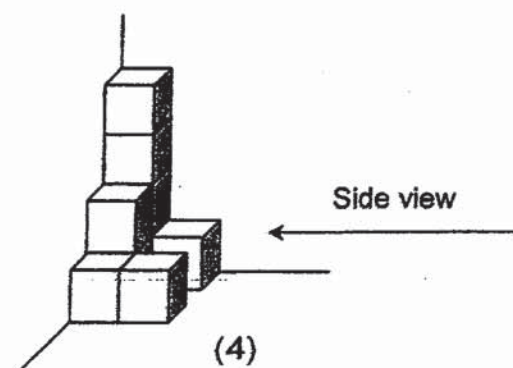
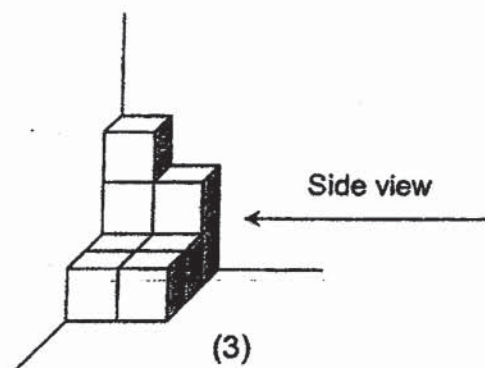
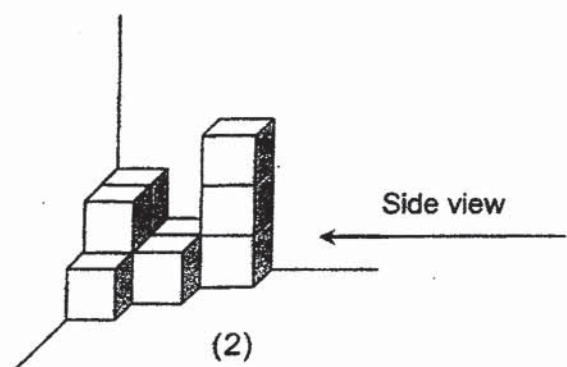
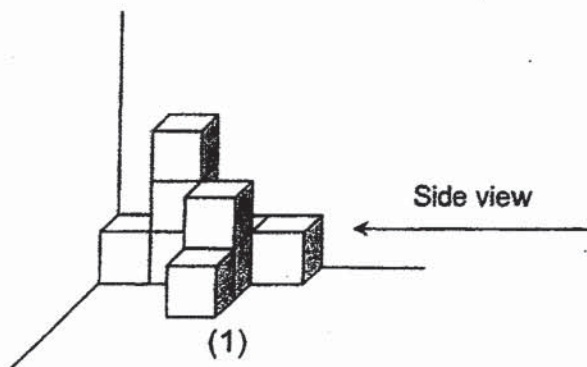
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- 12 Ahmad formed a solid made up of unit cubes as shown below.



Bala used the same number of unit cubes as Ahmad to form another solid with the same side view. Which of the following is the solid that Bala formed?

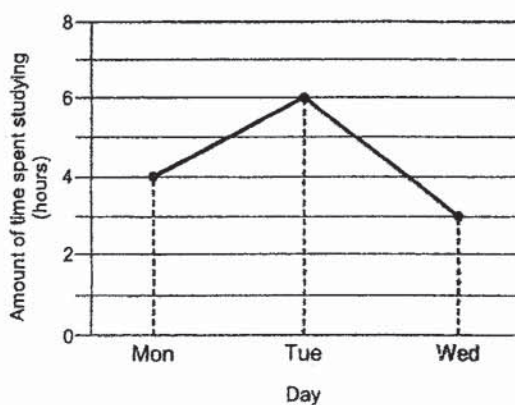


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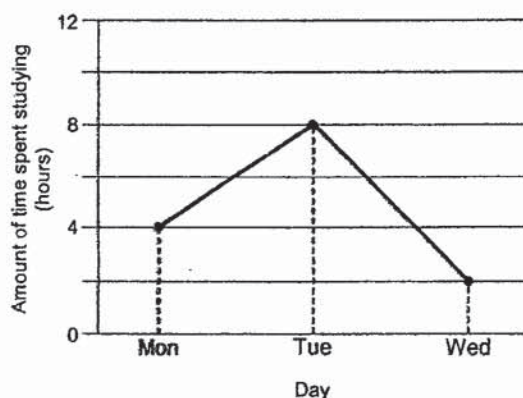
- 13 The table below shows the amount of time Mary spent studying over 3 days.

Day	Amount of time spent studying (hours)
Mon	4
Tue	6
Wed	2.5

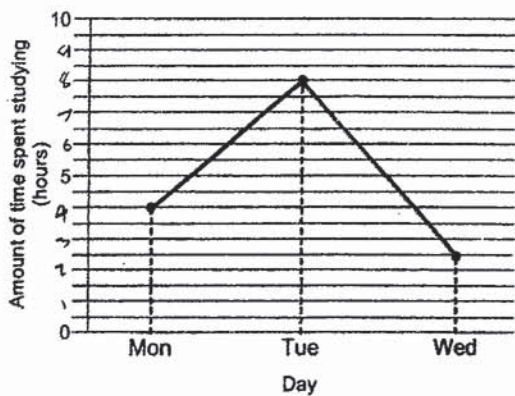
Which line graph best represents the information given in the table above?



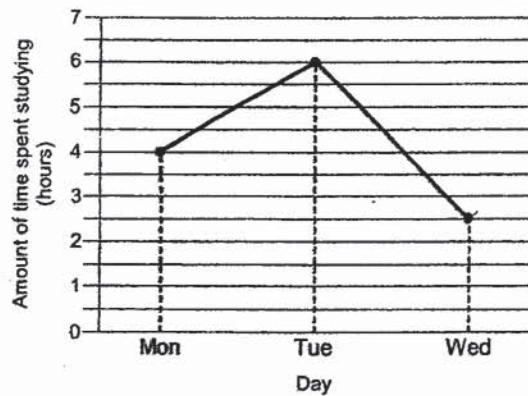
(1)



(2)



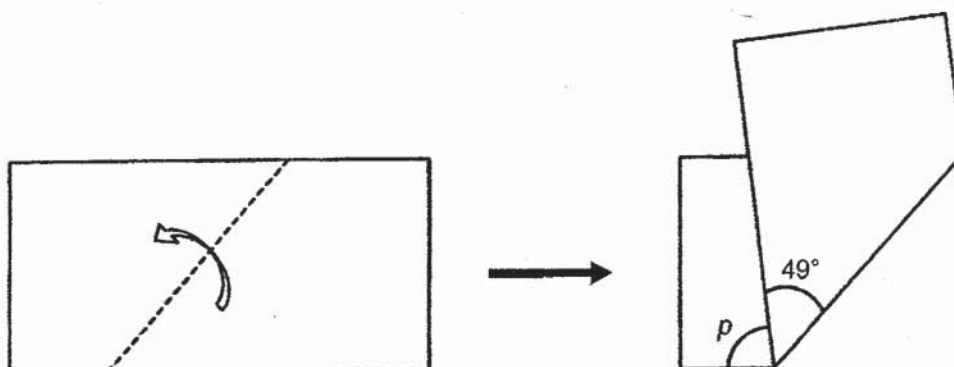
(3)



(4)

(Go on to the next page)

- 14 A rectangular piece of paper was folded along the dotted line as shown below. Find  $\angle p$ .



- (1)  $131^\circ$   
 (2)  $82^\circ$   
 (3)  $49^\circ$   
 (4)  $41^\circ$
- 15 Jiale spent  $\frac{5}{8}$  of her money on a purse and 7 similar markers. The cost of each marker is  $\frac{1}{6}$  of her remaining money. The total cost of the 7 markers is \$12 more than the cost of a purse. How much did Jiale have at first?

- (1) \$20  
 (2) \$22  
 (3) \$48  
 (4) \$64

(Go on to Booklet B)

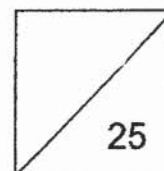


HENRY PARK PRIMARY SCHOOL  
2018 SEMESTRAL ASSESSMENT 1  
MATHEMATICS  
PRIMARY 6

PAPER 1  
(BOOKLET B)

Name: \_\_\_\_\_ (      )

Class: Primary 6 \_\_\_\_\_ / 6M \_\_\_\_\_



Total Time for Booklets A and B: 1 hour

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

You are **not** allowed to use a calculator.

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

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(5 marks)

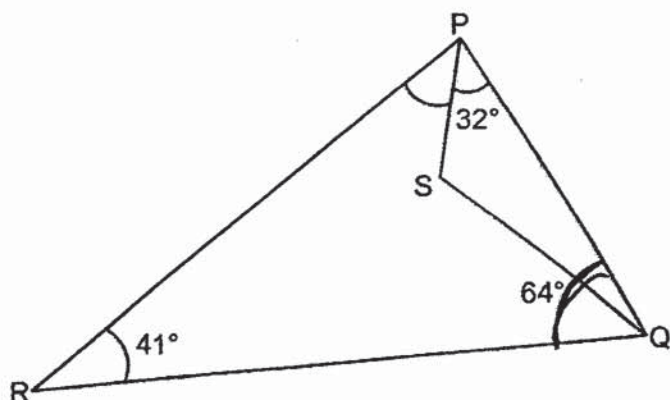
- 16 Find the value of  $12.4 - 8.07$

Ans: \_\_\_\_\_

- 17 Express 2.93 metres in centimetres.

Ans: \_\_\_\_\_ cm

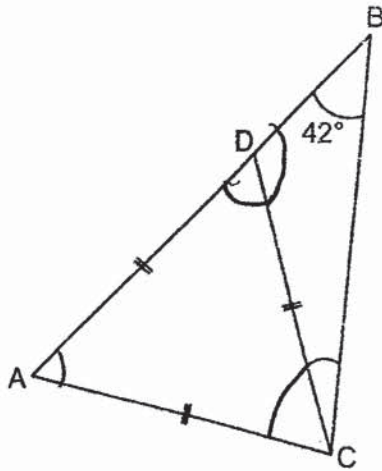
- 18 In the figure below,  $\angle PRQ = 41^\circ$ ,  $\angle PQR = 64^\circ$  and  $\angle SPQ = 32^\circ$ .  
Find  $\angle RPS$ .



Ans: \_\_\_\_\_ °

(Go on to the next page)

- 19 In the figure below, ADC is an equilateral triangle. Find  $\angle DCB$ .



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Ans: \_\_\_\_\_ °

- 20 Express 0.009 as a percentage.

Ans: \_\_\_\_\_ %

(Go on to the next page)



Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

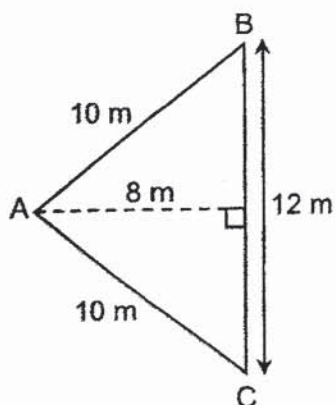
(20 marks)

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- 21 Joe had a ribbon 27 m long. He used  $\frac{4}{9}$  of the ribbon to tie a present.  
What was the length of the ribbon used to tie the present?

Ans: \_\_\_\_\_ m

- 22 What is the area of triangle ABC shown below?



Ans: \_\_\_\_\_ m<sup>2</sup>

- 23 How much does Ali have to pay for the bag after adding 7% GST?



Ans: \$ \_\_\_\_\_

(Go on to the next page)

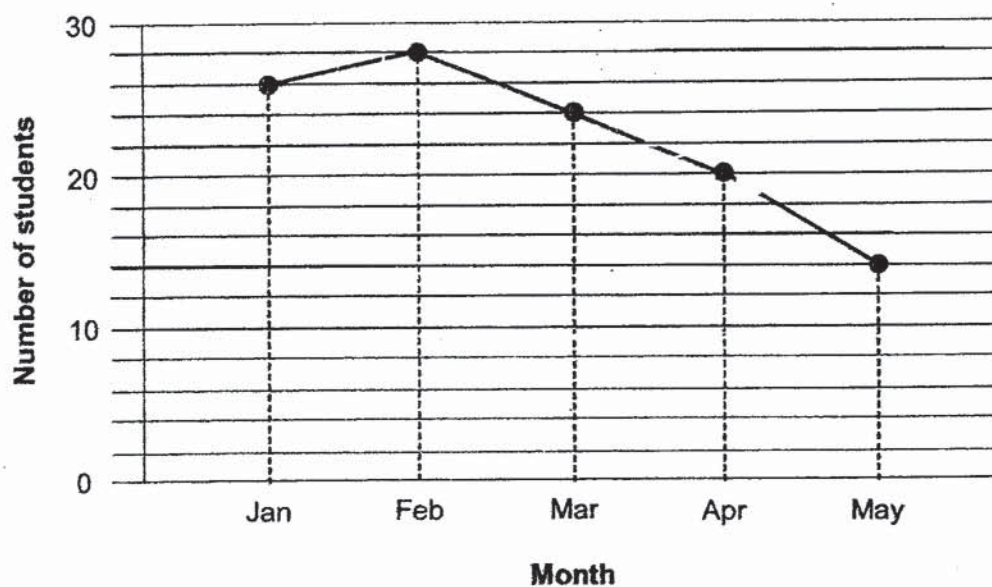


- 24 Find the value of  $3w - \frac{2w}{5} + 6$  when  $w = 5$

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Ans: \_\_\_\_\_

- 25 The line graph shows the number of students who were late for school from January to May.



$\frac{5}{7}$  of all the students who were late were girls. How many boys were late?

Ans: \_\_\_\_\_

(Go on to the next page)

- 26 Julia played a total of four games in a competition. The scores are shown below.

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in this space

Game	Score
1 <sup>st</sup>	33
2 <sup>nd</sup>	23
3 <sup>rd</sup>	?
4 <sup>th</sup>	28

Her average score for the first three games was 24.

- (a) What was her score for the 3<sup>rd</sup> game?
- (b) What was the percentage increase in her score from the 3<sup>rd</sup> to the 4<sup>th</sup> game?

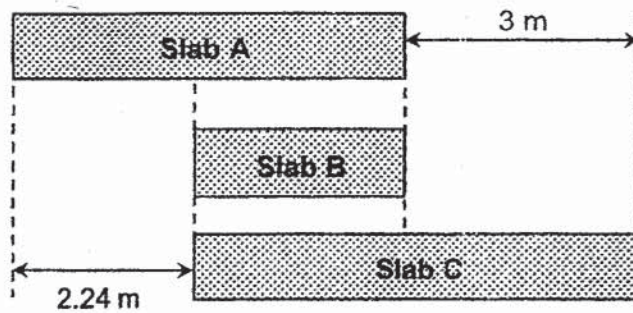
Ans: (a) \_\_\_\_\_

(b) \_\_\_\_\_ %

(Go on to the next page)

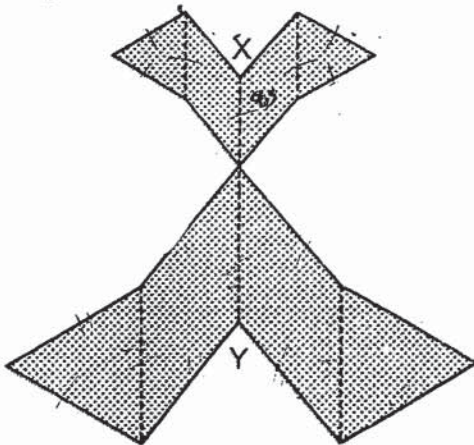
- 27 The figures below show 3 concrete slabs. The total length of the 3 concrete slabs is 9.98 m. Find the length of concrete slab B.

Do not write  
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Ans: \_\_\_\_\_ m

- 28 The figure below is formed using 4 rhombuses and 4 equilateral triangles. XY is a straight line measuring 9 cm. Find the perimeter of the figure.



Ans: \_\_\_\_\_ cm

(Go on to the next page)

- 29 The ratio of the number of girls to the number of boys in a camp is 2 : 3. 65 girls left the camp and the ratio of the number of girls to the number of boys became 1 : 4. Find the total number of children at the camp at first.

Do not write  
in this space

Ans: \_\_\_\_\_

- 30 Charlie used  $\frac{2}{7}$  of his money to buy 4 packets of flour and 7 packets of sugar. The cost of 2 packets of flour was the same as that of 3 packets of sugar. What was the most number of packets of sugar that Charlie could buy with the money he had left?

Ans: \_\_\_\_\_

End of Paper 1

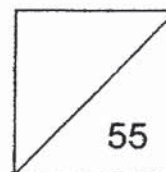


HENRY PARK PRIMARY SCHOOL  
2018 SEMESTRAL ASSESSMENT 1  
MATHEMATICS  
PRIMARY 6

PAPER 2

Name: \_\_\_\_\_ (     )

Class: Primary 6 \_\_\_\_\_ / 6M \_\_\_\_\_



Time for Paper 2: 1 h 30 min

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Show your working clearly as marks are awarded for correct working.

Write your answers in this booklet.

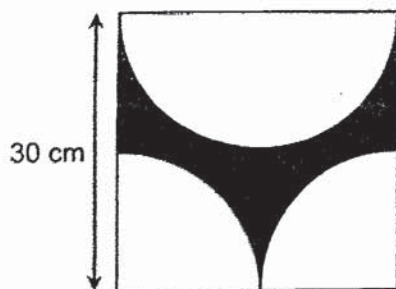
You are allowed to use a calculator.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

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in this space

- 1 The figure shows a semicircle and 2 quarter circles inside a square of side 30 cm. Find the area of the shaded part. (Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_  $\text{cm}^2$

- 2 The table below shows the number of 4 different coloured T-shirts sold by a shop in the month of March.

Colour of T-shirt	Number of T-shirts sold
Red	82
Yellow	117
Green	65
Blue	?

30% of all the T-shirts sold were yellow. How many blue T-shirts were sold?

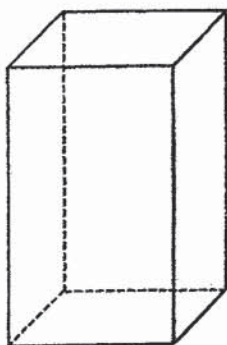
Ans: \_\_\_\_\_

(Go on to the next page)



- 3 Tank P measures 20 cm by 10 cm by 60 cm.

Do not write  
in this space



Tank P



Joe poured 4 pails of water into tank P. Each pail contained 1.2 litres of water. How much more water would Joe need to fill tank P to the brim? Express your answer in litres.

Ans: \_\_\_\_\_ litres

(Go on to the next page)



- 4 Mrs Sim baked three kinds of buns: red bean, mushroom and cheese buns. After selling  $\frac{2}{3}$  of the red bean buns,  $\frac{1}{5}$  of the mushroom buns and  $\frac{5}{7}$  of the cheese buns, there was an equal number of buns of each kind left. What was the ratio of the number of red bean buns to mushroom buns to cheese buns Mrs Sim baked?

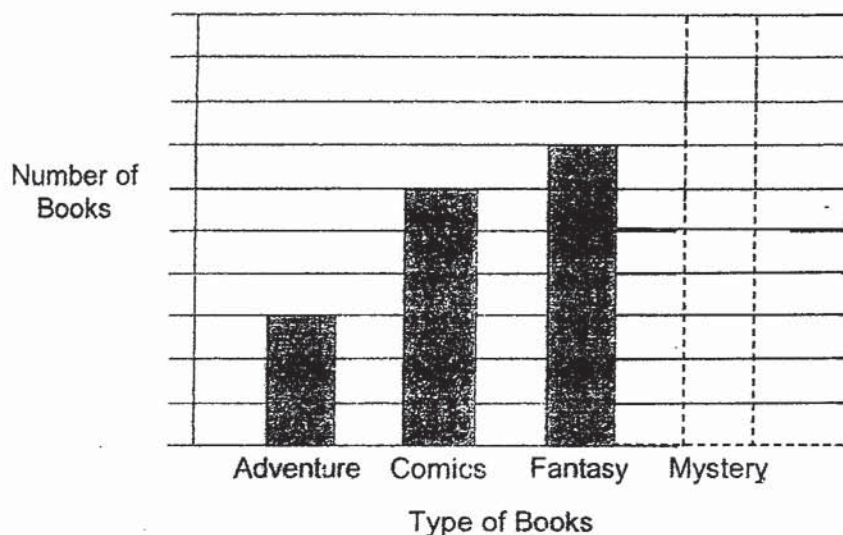
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Ans: \_\_\_\_\_

(Go on to the next page)

- 5 Books in a library are grouped according to the following types: Adventure, Comics, Fantasy and Mystery. The bar graph shows the number of each type of books in the library. The bar that shows the number of Mystery books has not been drawn.

Do not write  
in this space



35% of all the books in the library are Fantasy books.  
In the graph above, draw the bar to show the number of Mystery books in the library.

(Go on to the next page.)

For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question and part-question.

(45 marks)

Do not write  
in this space

- 6 Jacky and Michelle made some bookmarks over two days. On Monday, Jacky made 18 more bookmarks than Michelle. On Tuesday, Jacky made another 25 bookmarks and Michelle made another 19. At the end of the two days, Jacky made  $\frac{5}{8}$  of the total number of bookmarks. How many bookmarks did Michelle make altogether?

Ans: \_\_\_\_\_ [3]

(Go on to the next page)

- 7 Liz spent \$68.50 on 3 bars of chocolate, 4 boxes of cookies and a bag of sweets. The cost of each bar of chocolate is  $\frac{2}{5}$  as much as each box of cookies. The bag of sweets cost \$1.50 less than each bar of chocolate. What is the cost of the bag of sweets?

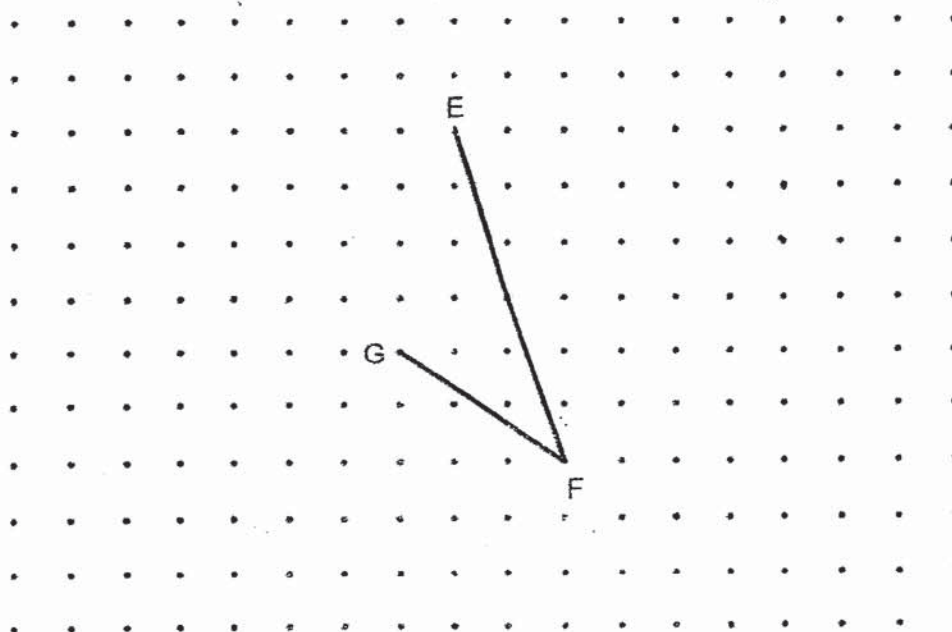
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Ans: \_\_\_\_\_ [3]

(Go on to the next page)

- 8 In the grid below, two lines EF and FG have been drawn.

Do not write  
in this space



- (a) EF and FG are two sides of a parallelogram EFGH. Complete the drawing of the parallelogram EFGH. [1]
- (b) GF also forms a side of a square GFKL. K and L are two dots in the grid. Complete the drawing of the square GFKL such that it does not overlap with parallelogram EFGH. [1]
- (c) EF also forms one side of an isosceles triangle EFX in which  $EF = FX$  and  $\angle EFX$  is less than  $90^\circ$ . X is a dot in the grid. Complete the drawing of the triangle EFX such that it does not overlap with parallelogram EFGH. [1]

(Go on to the next page)

- 9 Gabriel had a rectangular piece of paper as shown in Figure 1. The ratio of the length to the breadth of the paper was 3 : 2.

He cut out 6 semicircles each of diameter 14 cm as shown in Figure 2.

The breadth was now three times as long as the length of AB.

Find the perimeter of the rectangular piece of paper in Figure 1.

(Take  $\pi = \frac{22}{7}$ )

Do not write  
in this space

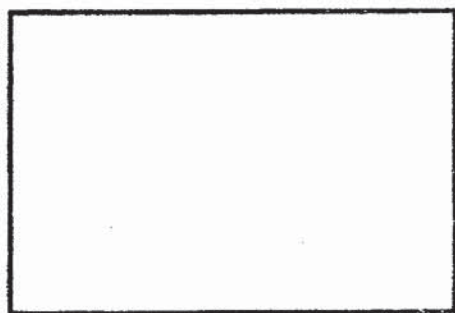


Figure 1

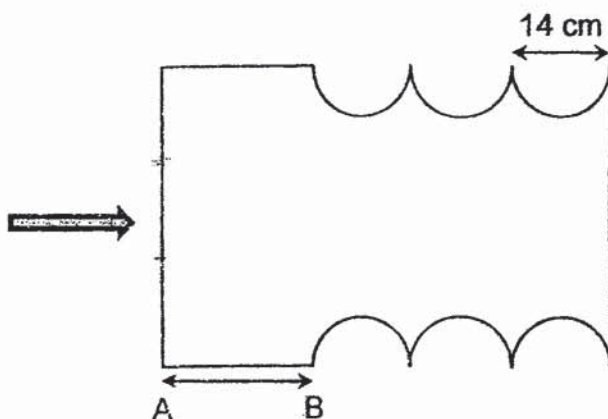


Figure 2

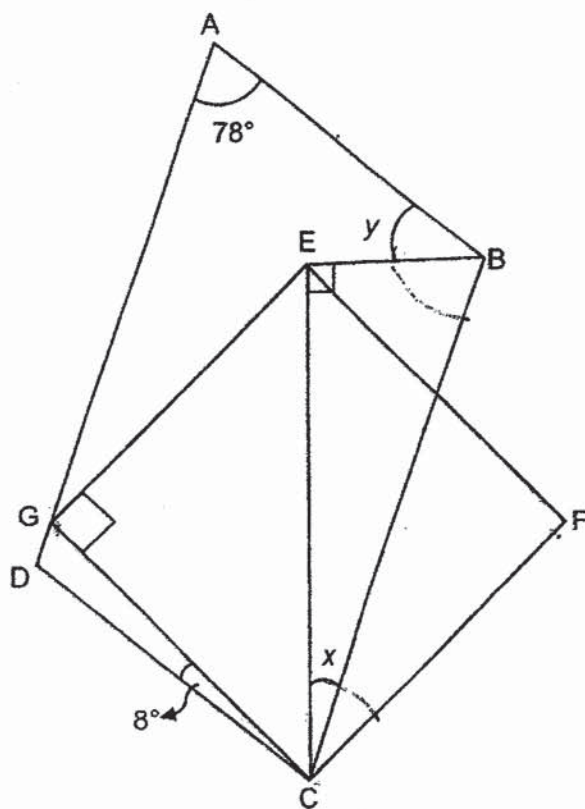
Ans: \_\_\_\_\_ [3]

(Go on to the next page)



- 10 In the figure below, ABCD is a parallelogram, EFCG is a square and CEB is a right-angled triangle.  $\angle GCD = 8^\circ$  and  $\angle GAB = 78^\circ$ .

Do not write  
in this space



- (a) Find  $\angle x$ .  
(b) Find  $\angle y$ .

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

(Go on to the next page)

- 11 The table below shows the number of tickets sold for a performance last week.

Do not write  
in this space

Day	Number of tickets sold
Monday to Friday	$3m$ per day
Saturday	$6m + 25$
Sunday	$4m - 7$

- (a) Express the total number of tickets sold last week in terms of  $m$ .  
Give your answer in the simplest form.
- (b) The average number of tickets sold each day last week was 174.  
Find the value of  $m$ .

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

(Go on to the next page)

- 12 A supermarket prepared vouchers of three different values for a lucky draw. The value of each voucher was either \$10, \$20 or \$50. There were half as many twenty-dollar vouchers as the total number of ten-dollar and fifty-dollar vouchers. The ratio of the number of ten-dollar to fifty-dollar vouchers was 5 : 3. The total value of all the vouchers prepared was \$4760.
- (a) What is the ratio of the number of twenty-dollar to ten-dollar to fifty-dollar vouchers?
- (b) What was the total number of vouchers prepared?

Do not write  
in this space

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

(Go on to the next page)

- 13 On Monday, Jimmy paid \$42.90 for 9 jars and some marbles at a shop. On Tuesday, he went to the same shop and paid \$64.70 for 11 jars and some marbles. Each jar cost \$1. He bought 66 more marbles on Tuesday than Monday. Jimmy packed all the marbles he bought into the 20 jars. Some jars contained 12 marbles while the rest contained 16. Given that the cost of each marble was the same,

Do not write  
in this space

- (a) how many marbles did Jimmy buy altogether?  
(b) how many jars contained 16 marbles?

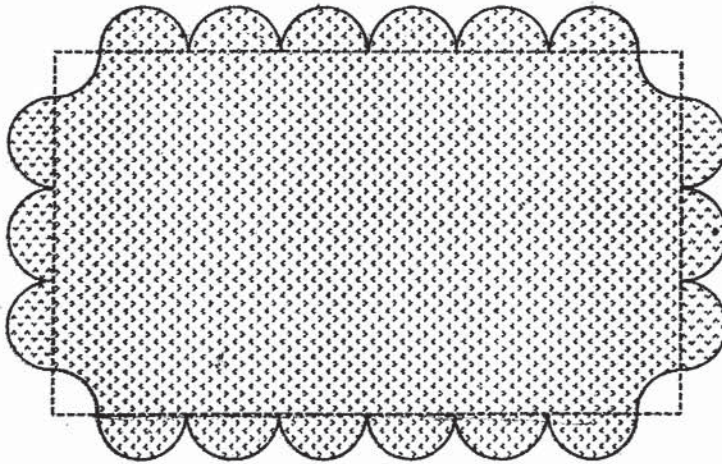
Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

(Go on to the next page)

- 14 The shaded figure below shows a rug. The outline of the rug is formed by semicircles and quarter circles, each of radius 7 cm.

Do not write  
in this space



- (a) Find the perimeter of the rug.  
(b) Find the area of the rug.

(Take  $\pi = \frac{22}{7}$ )

Ans: (a) \_\_\_\_\_ [2]

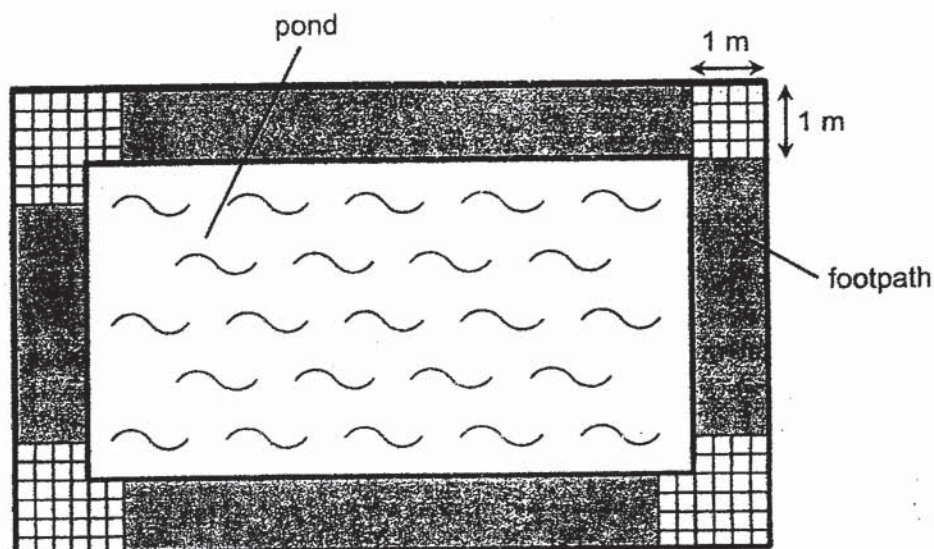
(b) \_\_\_\_\_ [3]

(Go on to the next page)



- 15 The figure shows a rectangular pond surrounded by a footpath. The width of the footpath is 1 m throughout. The footpath is fully covered by 488 square tiles of side 0.25 m each, following the pattern shown below. Each tile is in contact with those next to it. What is the perimeter of the pond?

Do not write  
in this space



Ans: \_\_\_\_\_ [3]

(Go on to the next page)



- 16 A total of 481 teachers and principals attended a conference in an auditorium. At the end of the conference,  $\frac{4}{5}$  of the teachers and  $\frac{3}{4}$  of the principals left the auditorium. 26 more teachers than principals remained in the auditorium.

Do not write  
in this space

- (a) How many principals remained in the auditorium?
- (b) All the remaining teachers and principals were put into a number of groups. The number of remaining teachers were divided equally into the groups. The number of remaining principals were also divided equally into the groups. What was the greatest possible number of groups the teachers and the principals were put into?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

(Go on to the next page)

- 17 A school hall was decorated with 60 yellow and 60 blue balloons for a graduation ceremony. Mrs Lee bought more balloons to decorate the hall. 35% of the balloons she bought were yellow and the rest were blue balloons. After all the balloons were put up, the number of yellow and blue balloons was in the ratio 5 : 8.
- (a) How many yellow and blue balloons were there in the hall now?
- (b) Mrs Lee then bought some pink balloons and put them up in the hall. 20% of the balloons in the hall were pink. How many pink balloons did she buy?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

End of Paper 2

Setters: Mrs Ling Lee Ching, Mdm Caroline Tay and Mrs Wong Ser Huay



**EXAM PAPER 2018**

LEVEL : PRIMARY 6  
SCHOOL : HENRY PARK PRIMARY SCHOOL  
SUBJECT : MATHEMATICS  
TERM : SA1

**Booklet A****Section A**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	4	2	2	1	4	4	2	1	2
Q11	Q12	Q13	Q14	Q15					
3	1	4	2	3					

**Section B**

- Q16 4.33  
Q17 293cm  
Q18  $43^\circ$   
Q20 0.9%  
Q21 12m  
Q22  $48\text{m}^2$   
Q23 \$53.50  
Q24 19  
Q25 32  
Q26 (a) 16  
(b) 75%  
Q27 1.58cm  
Q28 72cm  
Q29 260  
Q30 32

## Section C

**Q1** Area of square =  $30 \times 30$   
 $= 900 \text{ cm}^2$   
 Area of circle =  $\pi \times 15 \times 15$   
 $= 706.6 \text{ cm}^2$   
 Area of shaded part =  $900 - 706.5$   
 $= 193.5 \text{ cm}^2$

**Q2** 30% of T-shirt = 117  
 100% of T-shirt = 390  
 $390 - 82 - 117 - 65 = 126$

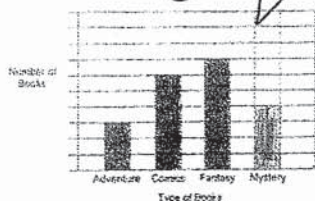
**Q3** Volume of tank =  $20 \times 10 \times 60$   
 $= 12000 \text{ cm}^3$   
 $12000 \text{ cm}^3 = 12000 \text{ ml} = 12 \text{ l}$   
 $12 \text{ l} \times 4 = 4.8 \text{ l}$   
 $12 \text{ l} - 4.8 \text{ l} = 7.2 \text{ l}$

**Q4**

Red	Mushroom	Cheese
$\frac{1}{3}$	$\frac{4}{5}$	$\frac{2}{7}$
$\frac{4}{12}$	$\frac{4}{5}$	$\frac{4}{14}$

Ratio =  $12 : 5 : 14$

**Q5**



35% of books = 7 units  
 100% of books = 20 units  
 $20 - 7 - 6 - 3 = 4 \text{ units}$

**Q6**

$18 + 25 = 43$   
 $43 - 19 = 24$   
 2 units = 24  
 1 unit = 12  
 3 units =  $12 \times 3$   
 $= 36$



Q12 (a)

\$10	\$20	\$30
5 units	4 units	3 units

Ratio = 4 : 5 : 3

(b)  $5 \text{ units} \times \$10 + 4 \text{ units} \times \$20 + 3 \text{ units} \times \$30 = \$4760$

$280 \text{ units} = 4760$

$1 \text{ unit} = 17$

$5 \text{ units} + 4 \text{ units} + 3 \text{ units} = 12 \text{ units}$

**$12 \text{ units} \times 17 = 204 \text{ vouchers}$**

Q13  $\$42.90 - \$9 = \$33.90$  (some marbles)

$\$64.70 - \$11 = \$53.70$  (some marbles) + 66 marbles)

$66 \text{ marbles} = \$19.80$

$1 \text{ marble} = \$0.30$

$\$33.90 + \$53.70 = \$87.60$

**$\$87.60 \div 0.3 = 292$**

Assume all the jars contain 12 marbles

$12 \times 20 = 240$

$292 - 240 = 52$

$16 - 12 = 4$

**$52 \div 4 = 13$  (jars containing 26 marbles)**

Q14 (a) Perimeter of the rug =  $2\pi r \times 10$   
=  **$440\text{cm}^2$**

(b) Length of rectangle =  $7 \times 7 \times 2 = 98\text{cm}$   
Breadth of rectangle =  $7 \times 4 \times 2 = 56\text{cm}$   
Area of rectangle =  $98 \times 56$   
=  $5488\text{cm}^2$

Area of circles =  $\pi \times 7 \times 7 \times 9$   
=  $1386\text{cm}^2$

Area of 1 circle =  $\pi \times 7 \times 7$   
=  $154\text{cm}^2$

**Area of shaded =  $5488 + 1386 - 154$   
=  $6720\text{cm}^2$**

Q15  $4 \times 4 \times 4 = 64$   
 $488 - 64 = 424$   
 $424 \div 4 = 106$   
 **$106 \times 0.25\text{m} = 26.5\text{m}$**



**Q8**

Q10 (a)  $\angle GCE = 45^\circ$   
 $\angle DCE = 45^\circ + 8^\circ$   
 $= 53^\circ$   
 $\angle x = 78^\circ - 53^\circ$   
 $= 25^\circ$

(b)  $\angle EBC = 180^\circ - 90^\circ - 25^\circ$   
 $= 65^\circ$   
 $180^\circ - 78^\circ = 102^\circ$   
 $\angle y = 102^\circ - 65^\circ$   
 $= 37^\circ$

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Q16 (a)  $26 \times 5 = 130$   
 $481 - 130 = 351$   
 $351 \div 9 = 39$

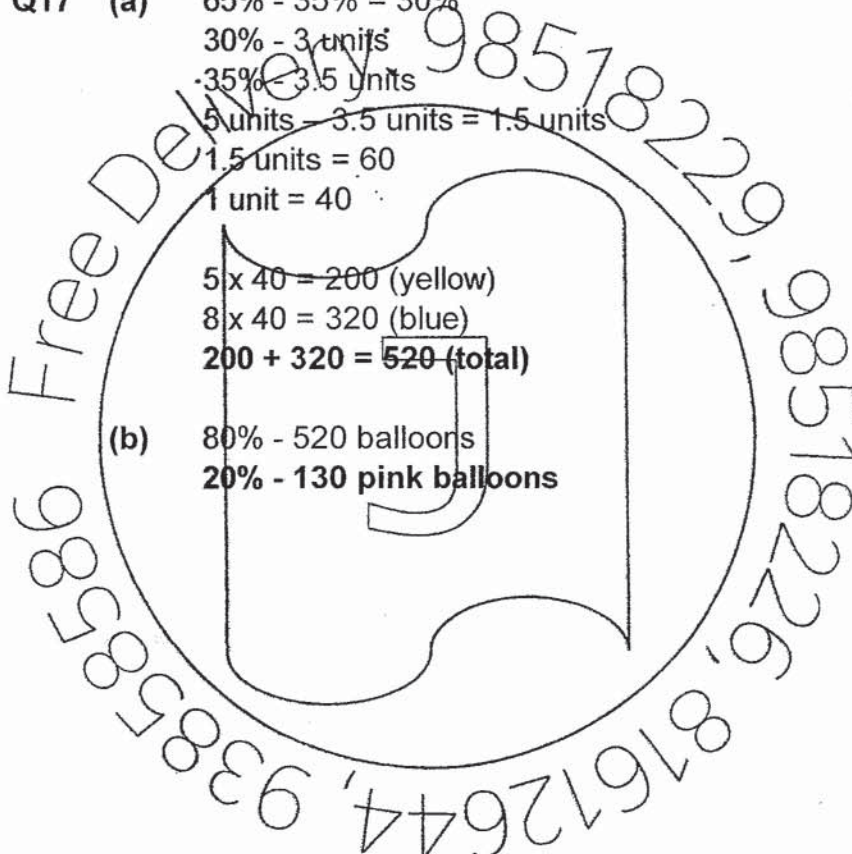
(b)  $39 + 26 = 65$   
 Factors of 65: 1, 5, **13**, 65  
 Factors of 39: 1, 3, **13**, 39



Q17 (a)  $65\% - 35\% = 30\%$   
 $30\% - 3 \text{ units}$   
 $35\% - 3.5 \text{ units}$   
 $5 \text{ units} - 3.5 \text{ units} = 1.5 \text{ units}$   
 $1.5 \text{ units} = 60$   
 $1 \text{ unit} = 40$

$5 \times 40 = 200 \text{ (yellow)}$   
 $8 \times 40 = 320 \text{ (blue)}$   
 $200 + 320 = 520 \text{ (total)}$

(b)  $80\% - 520 \text{ balloons}$   
 $20\% - 130 \text{ pink balloons}$



End





MARIS STELLA HIGH SCHOOL (PRIMARY)

SEMESTRAL ASSESSMENT 1

PRIMARY 6 MATHEMATICS

8 MAY 2018

PAPER 1

(BOOKLET A)

15 questions

20 marks

Total Time For Booklets A and B: <sup>1 hour</sup>~~50 min~~

NAME : \_\_\_\_\_ (      )

CLASS : PRIMARY 6 \_\_\_\_\_

**INSTRUCTIONS TO CANDIDATES**

1. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
2. FOLLOW ALL INSTRUCTIONS CAREFULLY.
3. ANSWER ALL QUESTIONS.
4. SHADE YOUR ANSWERS IN THE OPTICAL ANSWER SHEET (OAS) PROVIDED.
5. YOU ARE NOT ALLOWED TO USE A CALCULATOR.



Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

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1. Round off 21 649 to the nearest thousand.

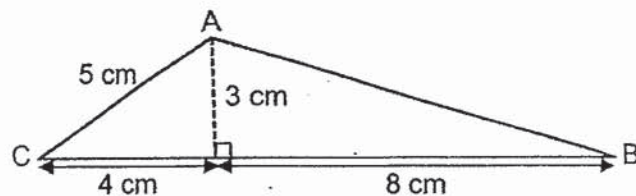
- (1) 20 000
- (2) 21 600
- (3) 21 650
- (4) 22 000

2.  $0.48 \div 10 = 4.8 \div \underline{\hspace{2cm}}$

- (1) 0.01
- (2) 0.10
- (3) 100
- (4) 1000

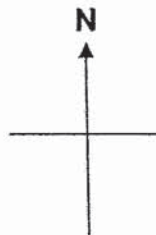
3. What is the area of Triangle ABC as shown in the figure?

- (1)  $18\text{cm}^2$
- (2)  $20\text{cm}^2$
- (3)  $30\text{cm}^2$
- (4)  $36\text{cm}^2$



4. John is facing south after turning  $270^\circ$  in anti-clockwise direction. What direction was John facing at first?

- (1) East
- (2) North
- (3) South
- (4) West





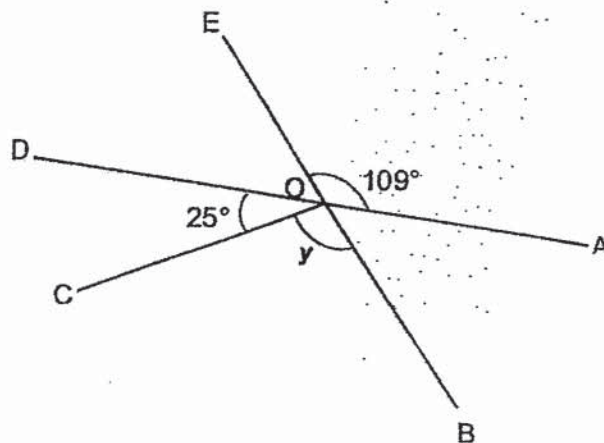
5.  $\frac{4}{5}$  of a number is 40. What is the number?

- (1) 32
- (2) 50
- (3) 160
- (4) 200

6. How many sixths are there in  $2\frac{2}{3}$ ?

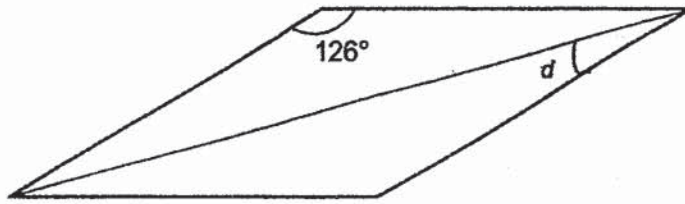
- (1) 8
- (2) 12
- (3) 14
- (4) 16

7. AOD and BOE are straight lines. Find  $\angle y$  in the figure shown.



- (1)  $46^\circ$
- (2)  $71^\circ$
- (3)  $84^\circ$
- (4)  $109^\circ$

8. The figure shows a rhombus. Find  $\angle d$  in the figure shown.

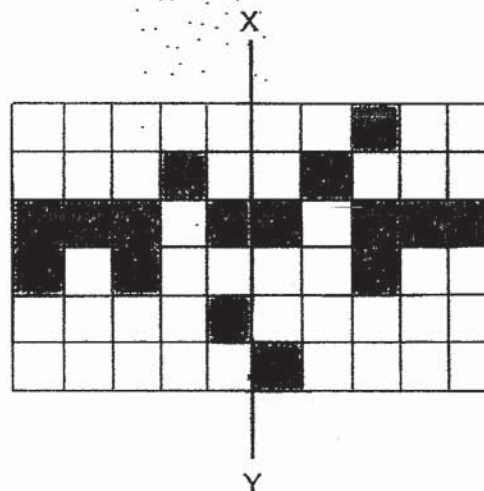


- (1)  $27^\circ$
- (2)  $54^\circ$
- (3)  $63^\circ$
- (4)  $126^\circ$

Paul had some marbles. He could pack them equally into 6 or 9 bags with no marbles left over. What is the least number of marbles Paul had?

- (1) 15
- (2) 18
- (3) 36
- (4) 54

10. What is the least number of squares that must be shaded in the figure below so that XY is a line of symmetry?



- (1) 1
- (2) 2
- (3) 3
- (4) 4

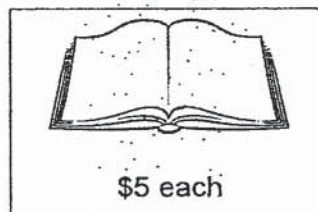
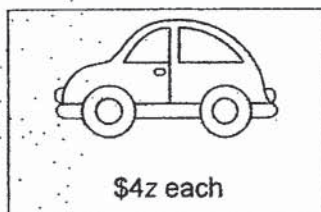
11. The total mass of 600 paper clips is 540 g.  
What is the total mass of 30 such paper clips?

- (1) 0.9 g
- (2) 2.7 g
- (3) 9 g
- (4) 27 g

12. Miley had three times as many chocolates as Cyrus. Taylor had half the number of chocolates as Miley. Miley gave half of her chocolates to Taylor.  
Find the ratio of the number of chocolates Miley had to the number of chocolates Cyrus had to the number of chocolates ~~Taylor~~ Taylor had.

- (1) 1 : 1 : 2
- (2) 3 : 2 : 6
- (3) 3 : 5 : 3
- (4) 6 : 2 : 3

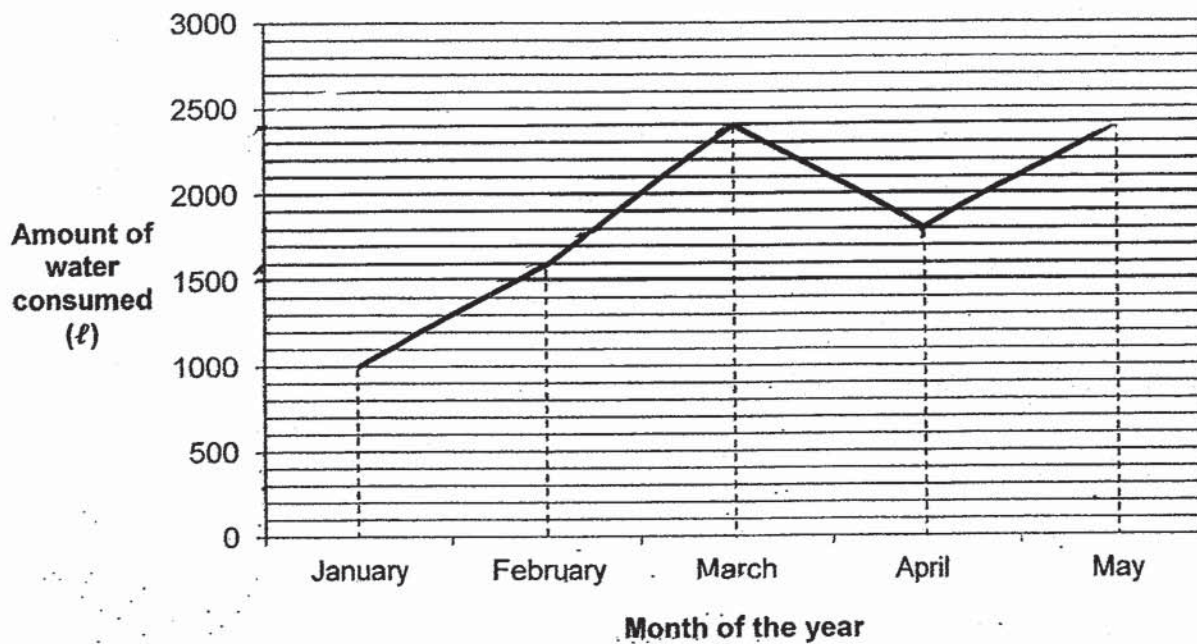
13. Jenny bought 2 toy cars and 3 books.



She gave the cashier \$50. How much change did she receive?

- (1) \$ (50 - 23z)
- (2) \$ (45 - 4z)
- (3) \$ (40 - 12z)
- (4) \$ (35 - 8z)

Study the line graph carefully. The graph shows the monthly water consumption by a company. Answer questions 14 and 15 based on the graph.



14. Which month saw a 60% increase in the consumption of water from the previous month?
- (1) February
  - (2) March
  - (3) April
  - (4) May
15. The amount of water used by the company in June was  $\frac{2}{3}$  the amount of water used in May. How much water did the company use in June?
- (1) 800 l
  - (2) 1200 l
  - (3) 1600 l
  - (4) 3600 l

End of Booklet A  
Go on to Booklet B



**MARIS STELLA HIGH SCHOOL (PRIMARY)**

**SEMESTRAL ASSESSMENT 1**

**PRIMARY 6 MATHEMATICS**

**8 MAY 2018**

**PAPER 1**

**(BOOKLET B)**

15 questions

25 marks

Total Time For Booklets A and B: ~~50 min~~ <sup>1 hour</sup>

**NAME :** \_\_\_\_\_ (      )

**CLASS : PRIMARY 6** \_\_\_\_\_

**INSTRUCTIONS TO CANDIDATES**

1. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
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4. WRITE YOUR ANSWERS IN THIS BOOKLET.
5. YOU ARE NOT ALLOWED TO USE A CALCULATOR.

**MARKS OBTAINED FOR**

PAPER 1 (BOOKLET A)	/ 20	Parent's Signature: _____  Date: _____
PAPER 1 (BOOKLET B)	/ 25	
TOTAL	/ 45	



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)

Do not  
write in  
this  
space.

16. Express  $1\frac{2}{7}$  as a decimal, correct to 2 decimal places

Answer : \_\_\_\_\_

17. Arrange the numbers from the greatest to the smallest.

0.805 ,  $\frac{7}{8}$  , 0.85

Answer : \_\_\_\_\_

18. Find the volume of a 8 cm-cube.

Answer : \_\_\_\_\_  $\text{cm}^3$

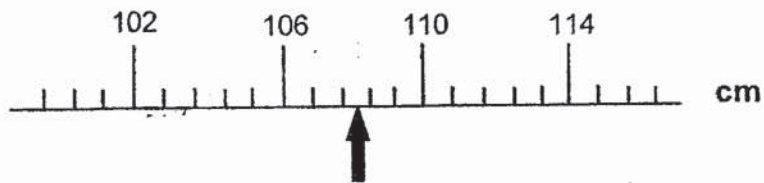
19. The mass of Alvin is  $\frac{6}{7}$  that of Bobby. Find the ratio of Alvin's mass to their total mass.

Answer : \_\_\_\_\_



20. What is the reading shown on the scale below?

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write in  
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space.



Answer : \_\_\_\_\_ cm

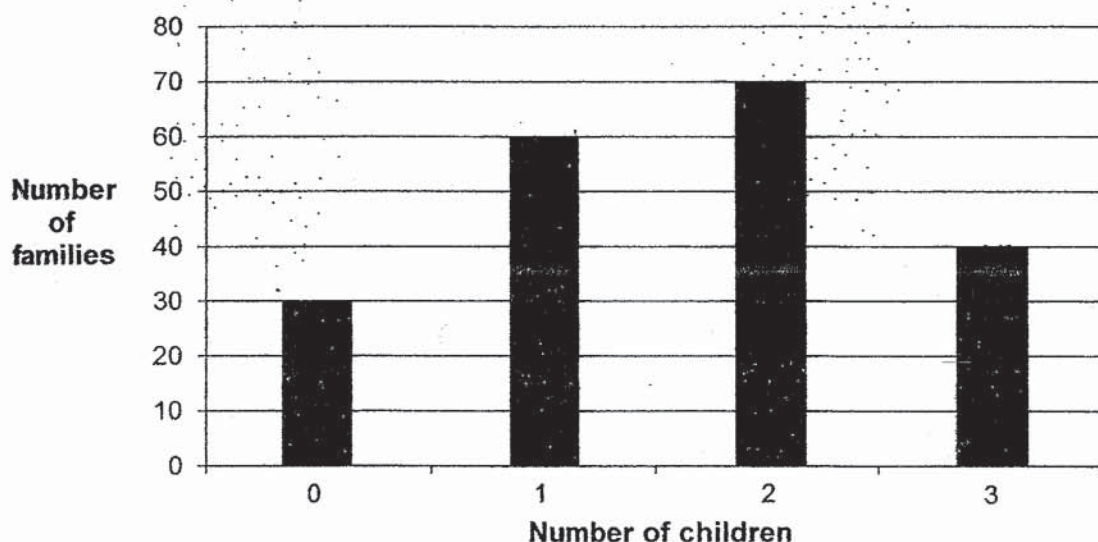
Questions 21 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated (20 marks)

Do not write in this space.

21. Siti paid \$200 for a watch. She received a 20% discount for the watch. How much was the original price of the watch?

Answer : \$ \_\_\_\_\_

22. The graph below shows the number of children from 220 families in a neighbourhood.



What fraction of the families had at least 2 children?

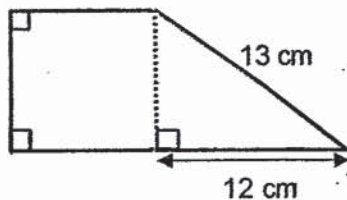
Answer : \_\_\_\_\_

23. A painter mixed blue and yellow paint in the ratio 3 : 7 to obtain green paint. He got 40 l of green paint. How much yellow paint did he use?

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space.

Answer : \_\_\_\_\_ l

24. The figure below is made up of a square and a right-angled triangle. Its perimeter is 40 cm. Find the area of the square.



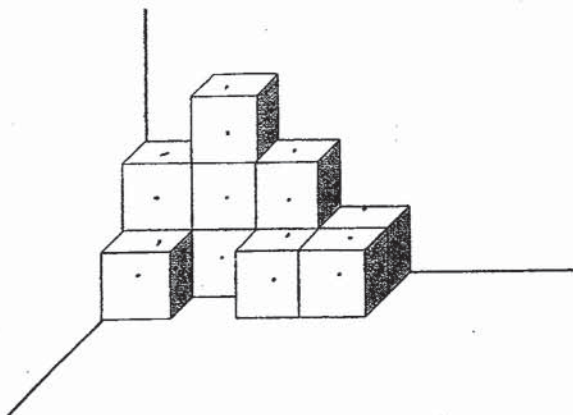
Answer : \_\_\_\_\_ cm<sup>2</sup>

25. Amin and Bala had a total of \$220. After Amin spent  $\frac{2}{5}$  of his money and Bala spent  $\frac{1}{2}$  of his money, they had an equal amount of money left. How much did Amin have at first?

Answer : \$ \_\_\_\_\_



26. The solid below is made up of 11 unit cubes glued together. It is fixed to a corner of a wall. All exposed area of the solid is then painted. What is the area covered in paint?



Do not write in this space.

Answer : \_\_\_\_\_  $\text{cm}^2$

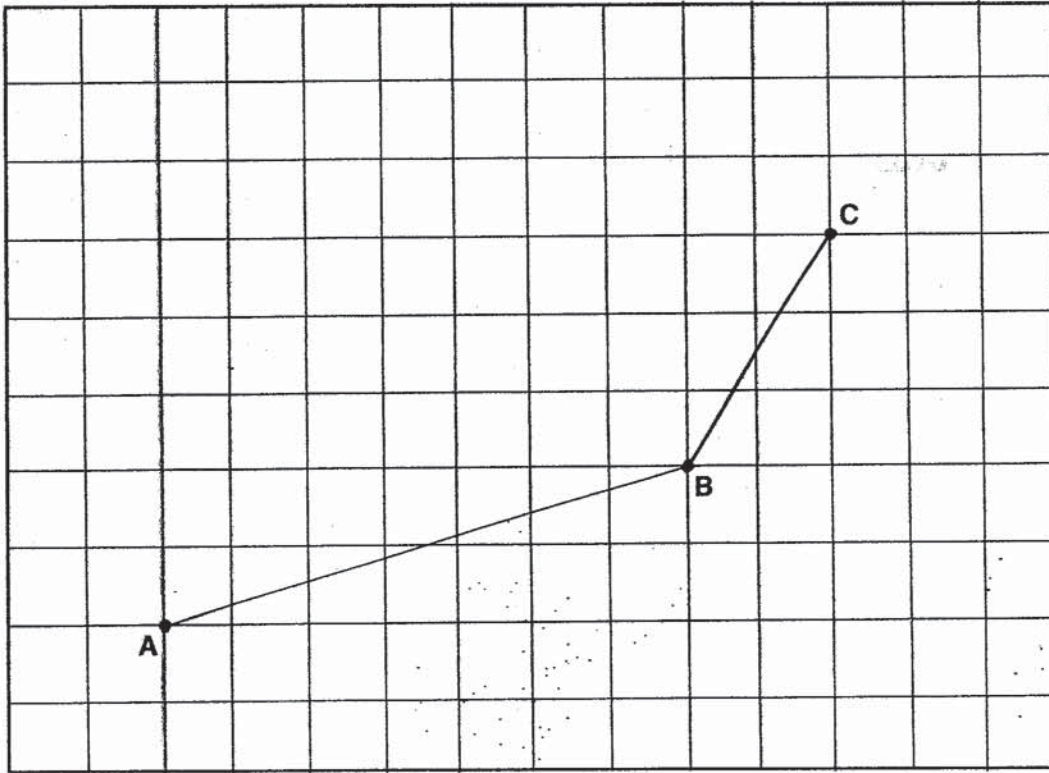
27. The table below shows the amount each of the four boys paid for a present. The present costs \$120. Which two boys paid a total of 35% of the cost of the present?

Name	Amount paid (\$)
Alan	43
Ben	35
Chris	26
Dave	16

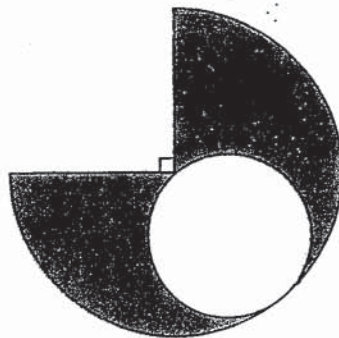
Answer : \_\_\_\_\_ and \_\_\_\_\_

28. AB and BC are two sides of a parallelogram. Complete the parallelogram by drawing the other two sides in the square grid below.

Do not write in this space.



29. The figure below is made up of part of a big circle with radius 4 cm and a small circle. Find the shaded area in terms of  $\pi$ .



Answer : \_\_\_\_\_  $\text{cm}^2$

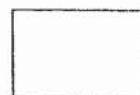


30. A class of 50 students had to fold origami rabbits. 5 of them were not present and the rest of the students had to fold 2 more origami rabbits each. How many origami rabbits did each student have to fold at first?

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write in  
this  
space.

Answer : \_\_\_\_\_

End of Booklet B









**MARIS STELLA HIGH SCHOOL (PRIMARY)**  
**SEMESTRAL ASSESSMENT 1**  
**PRIMARY 6 MATHEMATICS**  
**8 May 2018**  
**PAPER 2**

**17 questions**  
**55 marks**  
**Time: 1 h 30 min**

**NAME :** \_\_\_\_\_ (      )

**CLASS : PRIMARY 6** \_\_\_\_\_

**INSTRUCTIONS TO CANDIDATES**

1. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
2. FOLLOW ALL INSTRUCTIONS CAREFULLY.
3. ANSWER ALL QUESTIONS.
4. SHOW YOUR WORKINGS CLEARLY AS MARKS ARE AWARDED FOR CORRECT WORKING.
5. WRITE YOUR ANSWERS IN THIS BOOKLET.
6. YOU ARE **ALLOWED** TO USE A CALCULATOR.

MARKS OBTAINED FOR		
PAPER 1 (BOOKLET A & B)	/ 45	Parent's Signature: _____  Date: _____
PAPER 2	/ 55	
TOTAL	/100	



Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space.

1. The graph below shows the number of pens sold from Monday to Friday.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Number of pens	200	120	160	?	180

The average number of pens sold over the 5 days was 150.  
How many pens were sold on Thursday?

Answer: \_\_\_\_\_

2. Ali, Bryan and Charles have some marbles. Ali has  $y$  marbles. Bryan has twice as many marbles as Ali. Charles has 8 more marbles than Bryan.

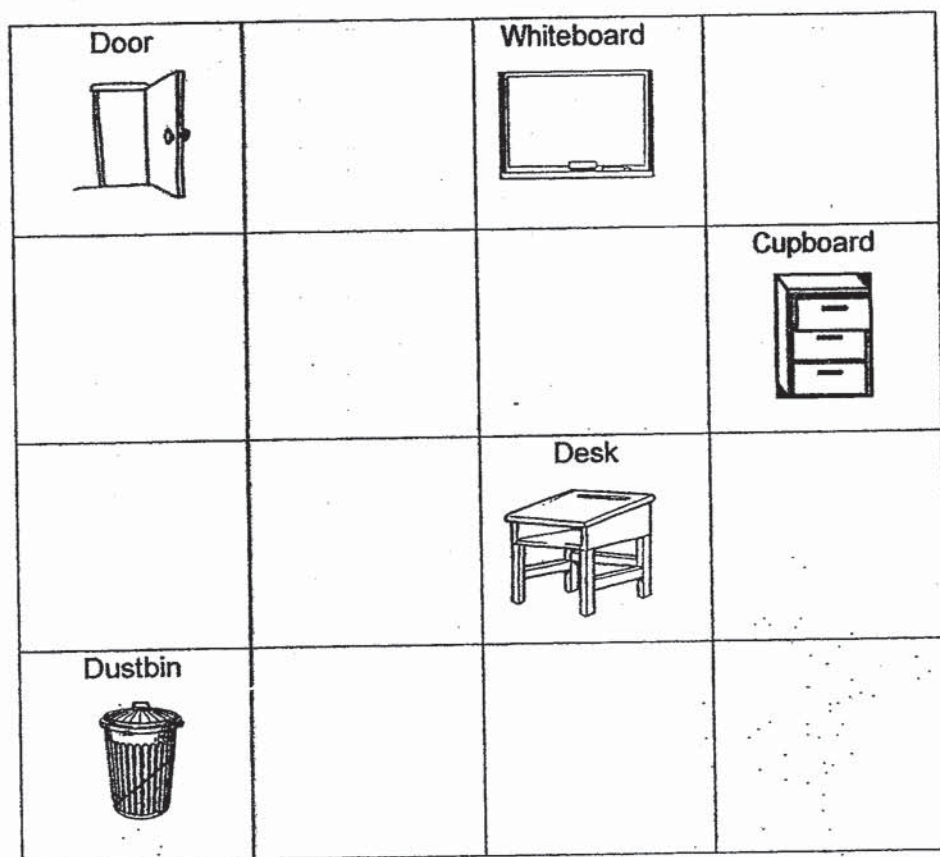
- (a) Express the number of marbles Charles has in terms of  $y$ .  
(b) If  $y = 9$ , find the total number of marbles the 3 boys have.

Answer: (a) \_\_\_\_\_

(b) \_\_\_\_\_



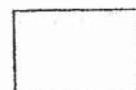
3. The square grid below shows the layout of a classroom. The door is north of the dustbin.



Do not write in this space.

- (a) In which direction is the desk from the cupboard?  
 (b) The teacher placed a chair north of the dustbin and south-west of the whiteboard. Mark the box in the grid where the chair is with a tick (✓).

Answer: (a) \_\_\_\_\_



4. The town council built lamp posts at equal distances along a straight road. The 4<sup>th</sup> and 7<sup>th</sup> lamp posts were  $1\frac{3}{4}$  km apart. The total length between the 1<sup>st</sup> and the last lamp posts was 14 km. How many lamp posts were there?

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write in  
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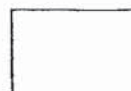
Answer: \_\_\_\_\_

5. The table below shows the parking charges at a shopping mall.

First hour	\$2
Subsequent half hour or part thereof	\$0.65

John paid \$5.25 for parking at the shopping mall. At most, how long did he park his car there?

Answer : \_\_\_\_\_ h





For Questions 6 to 17, show your working clearly in the space below each question and write your answer in the spaces provided. The number of marks available is shown in the brackets [ ] at the end of each question or part-question. (45 marks)

Do not write in this space.

6. The mass of a container of sand when  $\frac{1}{2}$  filled is 4.5 kg. It has a mass of 5.7 kg when it is  $\frac{4}{5}$  filled with sand. What is the mass of the empty container?

Answer: \_\_\_\_\_ [3]

7. Alice and Bala played a game for 10 rounds. In each round, the winner scored 2 points and 2 points was deducted from the loser. At the end of the game, Bala's total score was 4 points. How many rounds did Alice lose?

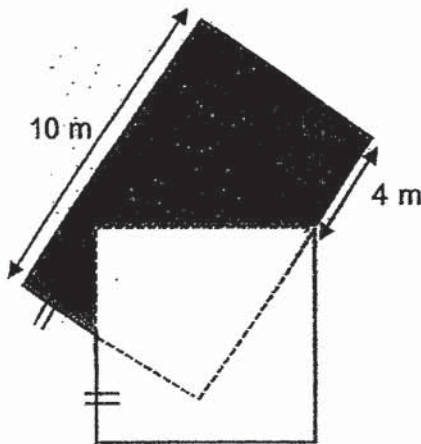
Answer : \_\_\_\_\_ [3]

8. Muthu mixed 1.7 kg of red rice, 2.45 kg of brown rice and 2.6 kg white rice in a sack. He then repacked the rice in the sack into smaller packets. Each smaller packet weighed 250 g and he sold each packet for \$2.40. How much did he collect after he sold all the packets?

Do not write in this space.

Answer : \_\_\_\_\_ [3]

9. The figure is made up of a square and a rectangle. The perimeter of the figure is 46 m. The length of the rectangle is 10 m. The breadth of the rectangle is equal to the side of the square. Find the area of the shaded portion.



Answer : \_\_\_\_\_ [3]

10. Joshua used ice cream sticks to form the patterns shown below.  
He recorded the number of ice cream sticks he used for each figure.

Do not  
write in  
this  
space.

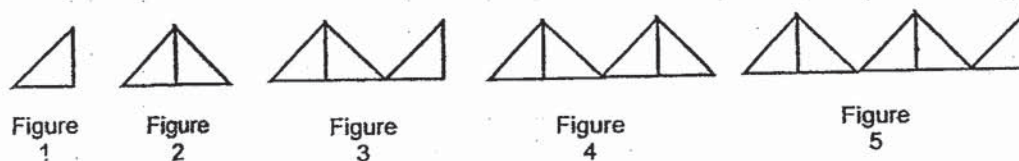
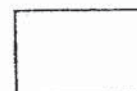


Figure	Number of ice cream sticks
1	3
2	5
3	8
4	10
5	13
6	
7	(a)

- (a) How many ice cream sticks did Joshua use to form Figure 7?  
(b) Joshua used 35 ice cream sticks to form a figure. What would the figure number be?

Answer: (a) \_\_\_\_\_ [1]

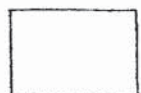
(b) Figure \_\_\_\_\_ [2]



- 11: Krissy mixed  $\frac{5}{6}$  l of water and  $1\frac{1}{2}$  l of cordial to make fruit punch. She drank  $\frac{2}{5}$  of the fruit punch and poured the remaining fruit punch into  $\frac{2}{5}$  l-bottles for sale. How much fruit punch was left over?

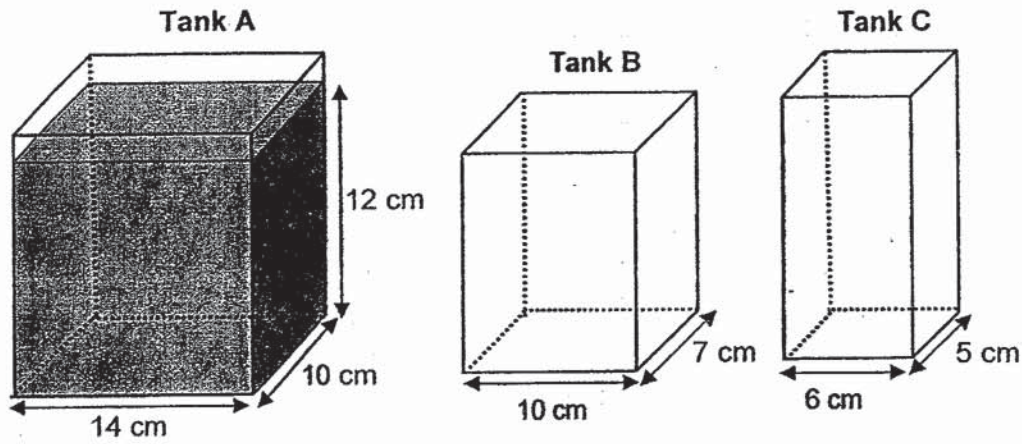
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this  
space.

Answer : \_\_\_\_\_ [3]



12. Tank A is filled with water to a height of 12 cm. Some water in Tank A is then poured into 2 empty rectangular tanks, B and C, such that the heights in all the 3 tanks are equal. Find the volume of water poured out of Tank A.

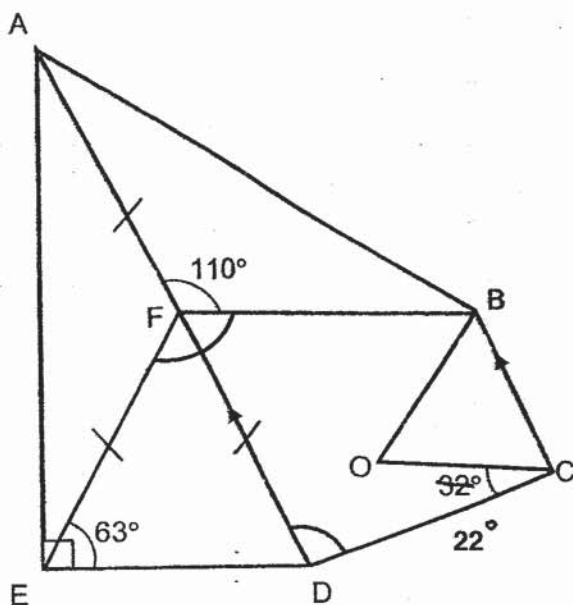
Do not write in this space.



Answer : \_\_\_\_\_ [4]

13. The figure below is made up of Trapezium BCDF and right-angled triangle AED. DEF and AEF are isosceles triangles and BOC is an equilateral triangle.

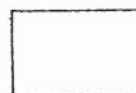
- (a) Find  $\angle FDC$   
 (b) Find  $\angle EFB$



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write in  
this  
space.

Answer: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]





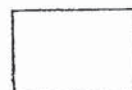
14. Derek's shop sells shirts and pants. A pair of pants is sold at \$48 and a shirt is sold at  $\frac{3}{4}$  the price of a pair of pants. On Friday, Derek sold  $\frac{2}{3}$  of the clothing in his shop and collected \$3672.  $\frac{2}{5}$  of the clothing sold were pants.

Do not  
write in  
this  
space.

- (a) How many shirts did Derek sell on Friday?  
(b) How many clothing were left unsold in the shop after Friday?

Answer: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

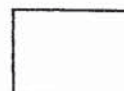


15. There were 1375 adults at a conference. The ratio of the number of women to the number men at the conference was 2 : 3. After an hour, 40% of the women left the conference. Two hours later, 20% of the remaining women left the conference.
- (a) How many women stayed on at the conference?
- (b) What percentage of the people who stayed on at the conference were women?
- Give your answer correct to 1 decimal place.

Do not  
write in  
this  
space.

Answer: (a) \_\_\_\_\_ [3]

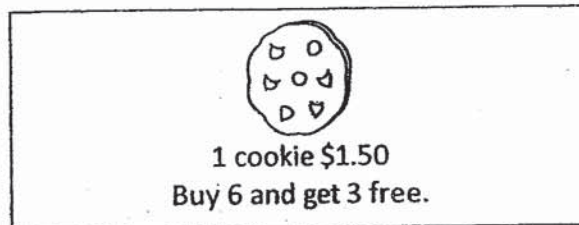
(b) \_\_\_\_\_ [2]



16. Mr Lee baked some cookies for sale. In the morning, Jason bought  $\frac{1}{4}$  of the cookies and received 9 cookies free. In the afternoon, Adam bought  $\frac{1}{3}$  of the remaining cookies and received 2 cookies free. Mr Lee had 118 cookies left by evening.

Do not  
write in  
this  
space.

- (a) How many cookies did Mr Lee bake?  
(b) In the evening, Mr Lee put up a sign as shown below.



He sold all 118 cookies in the evening, what was the least amount that he earned that evening?

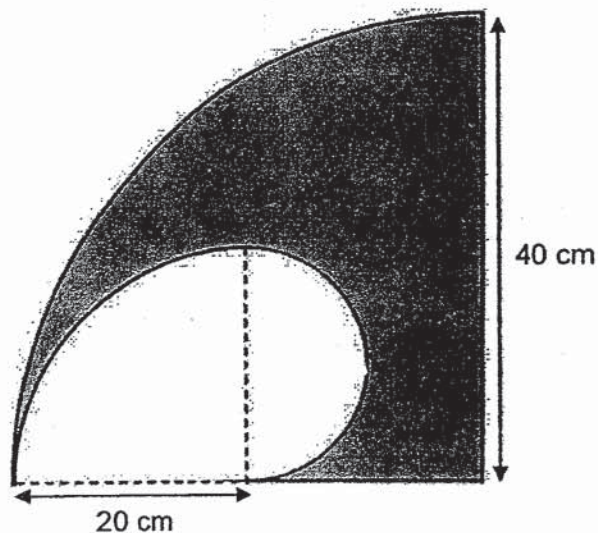
Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



17. A quadrant and semi-circle are cut out from a big quadrant as shown below.  
 (a) Find the perimeter of the remaining figure  
 (b) Find the area of the remaining figure.  
 (Take  $\pi = 3.14$ )

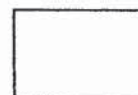
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Answer: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

End of Paper 2





**EXAM PAPER 2018**

**LEVEL** : PRIMARY 6  
**SCHOOL** : MARIS STELLA HIGH SCHOOL  
**SUBJECT** : MATHEMATICS  
**TERM** : SA1

**Booklet A****Section A**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	3	1	1	2	4	3	1	2	4
Q11	Q12	Q13	Q14	Q15					
4	2	4	1	3					

**Section B**

Q16

1.29

Q17

 $\frac{7}{8}$ , 0.85, 0.805

Q18

512cm<sup>3</sup>

Q19

6:13

Q20

108cm

Q21

\$250

Q22

 $\frac{11}{20}$ 

Q23

28

Q24

25cm<sup>2</sup>

Q25

\$100

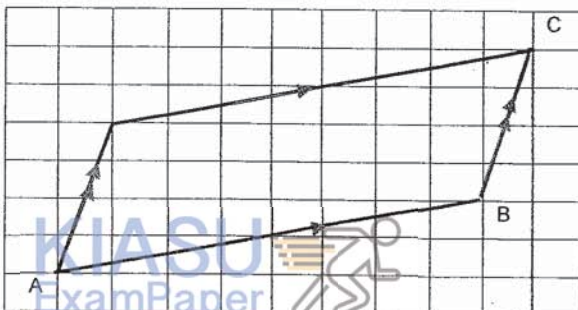
Q26

22cm<sup>2</sup>

Q27

Chris and Dave

Q28

Q29  $8\pi$ 

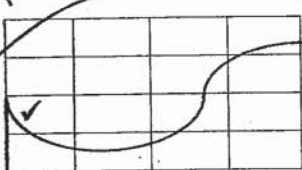
Q30 18



**Booklet B**  
**Section C**

**Q1**  $150 \times 5 = 750$   
 $750 - 200 - 120 - 160 - 180 = 90$

**Q2** (a)  $2y + 8$   
 (b)  $5y + 8$   
 $= 5 \times 9 + 8$   
 $= 53$

**Q3** (a) South-west  
 (b) 

**Q4**  $7 - 4 = 3$   
 $1\frac{3}{4} \div 3 = \frac{7}{12}$   
 $14 \div \frac{7}{12} = 24 \text{ (gap)}$   
 $24 + 1 = 25$

**Q5**  $1 + 5 \times \frac{1}{2} = 3.5h$

**Q6**  $5.7\text{kg} - 4.5\text{kg} = 1.2\text{kg}$   
 $3 \text{ units} = 1.2\text{kg}$   
 $5 \text{ units} = 2\text{kg}$   
 $4.5\text{kg} - 2\text{kg} = 2.5\text{kg}$

**Q7** Assume Bala won all games

$10 \times 2 = 20$   
 $20 - 4 = 16$   
 $2 + 2 = 4$   
 $16 \div 4 = 4 \text{ (Bala lost)}$

$10 - 4 = 6 \text{ rounds (Alice lost)}$

**Q8**  $1700 + 2450 + 2600 = 6750$   
 $6750 \div 250 = 27$   
 $27 \times \$2.40 = \$64.80$

Q9  $\left(\frac{1}{2} \times 4 \times 6\right) + \left(\frac{1}{2} \times 4 \times 8\right) = 28\text{m}^2$   
 $10 \times 8 = 80\text{m}^2$   
 $80\text{m}^2 - 28\text{m}^2 = 52\text{m}^2$

- Q10 (a) 18 ice cream sticks  
 (b) Figure 14

Q11  $\frac{5}{6} + \frac{9}{6} = \frac{14}{6}$   
 $\frac{14}{6} \times \frac{3}{5} = \frac{14}{10}$   
 $\frac{14}{10} \div \frac{4}{10} = 3\frac{1}{2}$  (bottles)

$\frac{1}{2}$  bottle =  $\frac{1}{5}$  l

Q12  $14 \times 10 = 140$   
 $10 \times 7 = 70$   
 $6 \times 5 = 30$   
 $1680 \div (140 + 70 + 30) = 7$   
 $14 \times 10 \times (12 - 7) = 700\text{cm}^3$

Q13 (a)  $180^\circ - 70^\circ - 60^\circ = 50^\circ$   
 $360^\circ - 22^\circ - 60^\circ - 60^\circ - 50^\circ - 70^\circ = 98^\circ$   
 (b)  $90^\circ - 63^\circ = 27^\circ$   
 $180^\circ - 27^\circ - 27^\circ = 126^\circ$   
 $360^\circ - 126^\circ - 110^\circ = 124^\circ$

Q14 (a)  $2 \times \$48 = \$96$  (cost of 1 shirt)  
 $2u \times 48 + 3u \times 36 = 204u$   
 $204u = \$3672$   
 $1u = 18$   
 $18 \times 3 = 54$  (no. of shirts)

- (b) 5 units = 90 (total clothing sold)  
 2 units = 90  
 1 unit = 45 (unsold clothing)

- Q15 (a)** 5 units = 1375  
 2 units = 550 (women)  
 100% - 550  
 60% - 330 (40% left, 60% stayed)  
 100% - 330 (remaining)  
**80% - 264 (20% of the remaining left, 80% of women stayed)**

- (b)**  $1375 - 550 = 825$  (man who stayed)  
 $825 + 264 = 1089$  (people who stayed)

$$\frac{264}{1089} \times 100\% = 24.2\%$$

- Q16 (a)**  $118 + 2 = 120$

$$120 \div 2 = 60$$

$$60 \times 3 = 180$$

$$180 + 9 = 189$$

$$189 \div 3 = 63$$

$$64 \times 4 = 252 \text{ (no. of cookies baked)}$$

- (b)** 9 cookies -  $6 \times \$1.50 = \$9$

$$118 \div 9 = 13 \text{ r } 1 \text{ cookie}$$

$$13 \times \$9 = \$117$$

$$\$117 + \$1.50 = \$118.50 \text{ (118 cookies)}$$

- Q17 (a)** circumference of small quad =  $\frac{1}{4} \times 40 \times 3.14$   
 $= 31.4\text{cm}$

$$\text{circumference of semicircle} = \frac{1}{2} \times 20 \times 3.14$$

$$= 31.4\text{cm}$$

$$\text{circumference of big quad} = \frac{1}{4} \times 80 \times 3.14$$

$$= 62.8\text{cm}$$

$$62.8 + 31.4 + 31.4 + 40 + 20 = 185.6\text{cm (perimeter)}$$

- (b)** Area of small quad =  $\frac{1}{4} \times 3.14 \times 20 \times 20$   
 $= 314\text{cm}^2$

$$\text{Area of semicircle} = \frac{1}{2} \times 3.14 \times 10 \times 10$$

$$= 157\text{cm}^2$$

$$\text{Area of big quad} = \frac{1}{4} \times 3.14 \times 40 \times 40$$

$$= 1256\text{cm}^2$$

$$1256 - 314 - 157 = 785\text{cm}^2 \text{ (Area of remaining figure)}$$

End

4





**NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1 – 2018  
PRIMARY 6**

**MATHEMATICS  
PAPER 1  
(BOOKLET A)**

**Total Time for Booklets A and B: 1 hour**

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. The use of calculators is **NOT** allowed.

**Name :** \_\_\_\_\_ (                      )

**Class : 6** \_\_\_\_\_

**Date : 8 May 2018**

**Parent's Signature :** \_\_\_\_\_





**Section A (20 marks)**

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice and shade your answer (1, 2, 3 or 4) on the Optical Answer Sheet.

---

1. What is the value of  $82 \times 300$ ?

- (1) 16 000
- (2) 24 000
- (3) 24 600
- (4) 27 600

2. How many thousands make 5 630 000?

- (1) 563
- (2) 5 630
- (3) 56 300
- (4) 563 000

3. What does the digit 7 in 6.475 stand for?

- (1) 7 ones
- (2) 7 tenths
- (3) 7 hundredths
- (4) 7 thousandths

4. Which of the following is likely to be the mass of a chicken egg?

- (1) 8 kg
- (2) 800 g
- (3) 80 g
- (4) 8 g

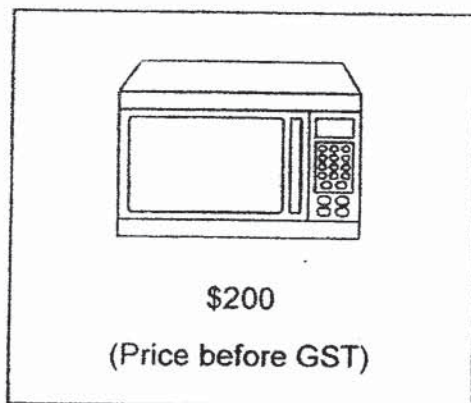
5. Simplify  $28 + 13y - y + 5y$ .

- (1)  $28 + 7y$
- (2)  $28 + 17y$
- (3)  $41 + 5y$
- (4)  $45y$

6 Which of the following has the same value as 5.14?

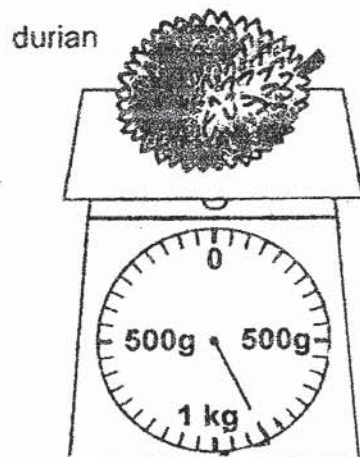
- (1)  $5 + \frac{1}{10} + \frac{4}{100}$
- (2)  $5 + \frac{14}{10}$
- (3)  $5 + \frac{14}{1\,000}$
- (4)  $5 + \frac{1}{10} + \frac{4}{1\,000}$

7. What is the price of the oven after adding 7% GST?



- (1) \$186
- (2) \$193
- (3) \$207
- (4) \$214

8. Look at the diagram below. What is the mass of the durian?



- (1) 700 g  
(2) 850 g  
(3) 1 150 g  
(4) 1 200 g
9. Fandi paid \$20 for 40 cards. How much did each card cost?
- (1) 5¢  
(2) 20¢  
(3) 50¢  
(4) \$2
10. The table shows John's marks in his Mathematics tests.

Test	1	2	3
Marks	79	82	79

Find John's average marks.

- (1) 79  
(2) 80  
(3) 81  
(4) 82

11. Which one of the following fractions is nearest to 1?

(1)  $1\frac{1}{7}$

(2)  $1\frac{1}{6}$

(3)  $\frac{4}{5}$

(4)  $\frac{3}{4}$

12. Uncle Bob mixes 3 litres of red paint with 1 litre of white paint to get 4 litres of pink paint. He uses a total of 36 litres of pink paint for a paint job. How much red paint does he use?

(1) 40 litres

(2) 27 litres

(3) 9 litres

(4) 4 litres

13. Amy's monthly salary was \$4 200 last year. There is a 40% increase in her salary this year. What is her monthly salary this year?

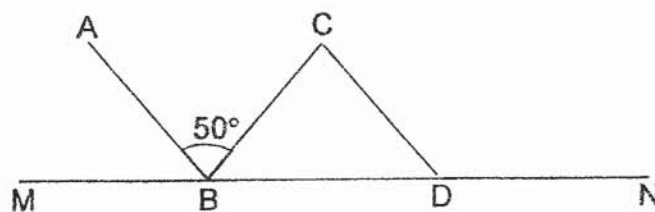
(1) \$1 680

(2) \$2 520

(3) \$5 880

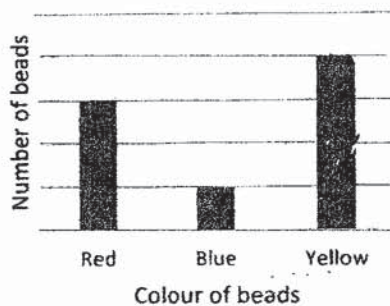
(4) \$6 300

14. In the figure, not drawn to scale, MN is a straight line,  $BC = DC$  and  $AB \parallel CD$ . Find  $\angle BDC$ .

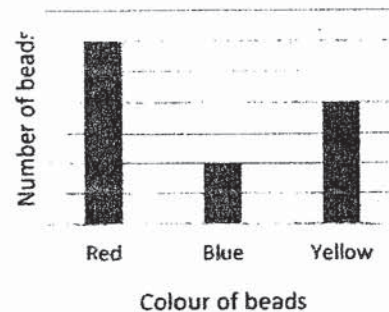


- (1)  $40^\circ$   
 (2)  $50^\circ$   
 (3)  $65^\circ$   
 (4)  $130^\circ$
15. The ratio of the number of red beads to the number of blue beads is 3 : 2.  
 The ratio of the number of red beads to the number of yellow beads is 1 : 2.  
 Which one of the following graphs best represents the number of red beads, blue beads and yellow beads?

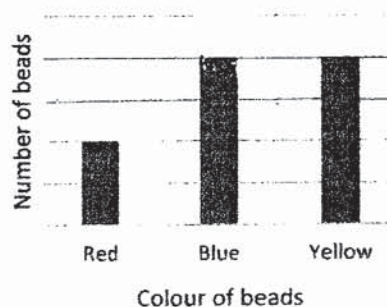
(1)



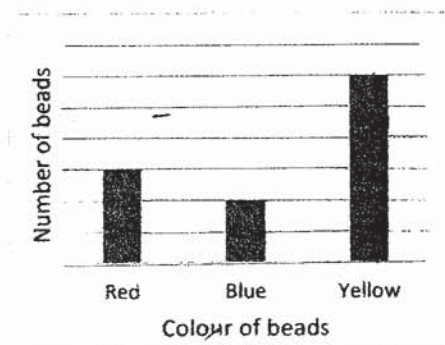
(2)



(3)



(4)





**NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1 – 2018  
PRIMARY 6**

**MATHEMATICS  
PAPER 1  
(BOOKLET B)**

**Total Time for Booklets A and B: 1 hour**

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of calculators is **NOT** allowed.

**Marks Obtained**

<b>Paper 1</b>	<b>Booklet A</b>		<b>/ 45</b>
	<b>Booklet B</b>		
<b>Paper 2</b>			<b>/ 55</b>
<b>Total</b>			<b>/ 100</b>

**Name :** \_\_\_\_\_ (       )

**Class :** 6 \_\_\_\_\_

**Date :** 8 May 2018

**Parent's Signature :** \_\_\_\_\_



**Section B (25 marks)**

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

---

16. Round 69 052 to the nearest hundred.

Ans: \_\_\_\_\_

17. Find the value of  $2 \div \frac{4}{9}$ .

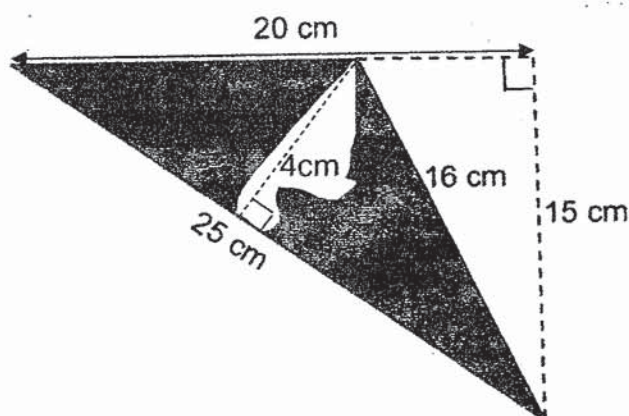
Give your answer as a mixed number in the simplest form.

Ans: \_\_\_\_\_

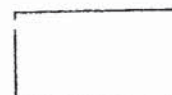
18. Find the value of  $80.2 \div 5$ .

Ans: \_\_\_\_\_

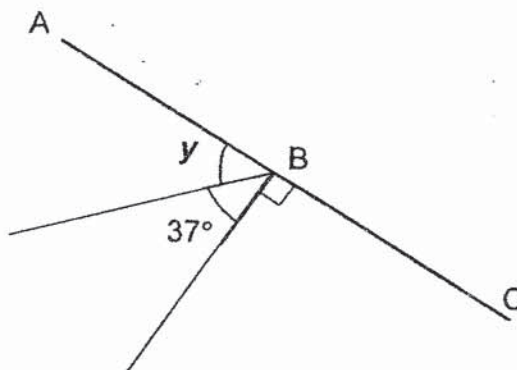
19. Find the area of the shaded triangle below.



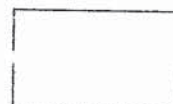
Ans: \_\_\_\_\_ cm<sup>2</sup>



20. In the figure, ABC is a straight line. Find  $\angle y$ .



Ans: \_\_\_\_\_°



Questions 21 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

---

21. Find the value of  $3y - 5 + \frac{2y}{4}$  when  $y = 4$ .

Ans: \_\_\_\_\_

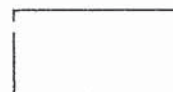
22. In a race, Diana walked at an average speed of 90 m/min for the first 20 minutes and walked at an average speed of 100 m/min for the next 30 minutes. What was her average walking speed for the race?

Ans: \_\_\_\_\_ m/min

23. There are 40 red stickers, 24 green stickers and 15 yellow stickers.
- (a) Express the number of green stickers as a fraction of the number of red stickers in its simplest form.
- (b) What is the ratio of the number of yellow stickers to the total number of stickers?

Ans: (a) \_\_\_\_\_

(b) \_\_\_\_\_



24. Use all the digits 2, 1, 9 and 0 to form

- (a) the smallest even number
- (b) the number closest to 2 000

Ans: (a) \_\_\_\_\_

(b) \_\_\_\_\_

25. Mr Tan has  $\frac{7}{8}$  kg of coffee powder. He packs the coffee powder into packets of  $\frac{1}{4}$  kg each.

- (a) How many such packets does he get?
- (b) What is the mass of the remaining coffee powder? Give your answer as a fraction in the simplest form.

Ans: (a) \_\_\_\_\_

(b) \_\_\_\_\_ kg

26. Liming had \$80. He bought 5 files and 2 pens. Each pen cost \$3k and each file cost \$k. Find the amount of money Liming had left in terms of k. Give your answer in the simplest form.

Ans: \$ \_\_\_\_\_



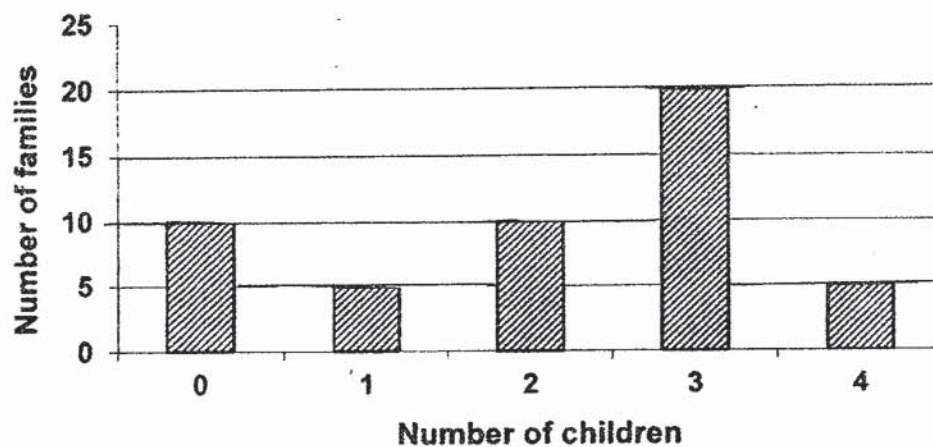
27. The table shows how much ABC Cleaning Company charges for a home cleaning job.

First 4 hours	\$100
Every additional hour	\$30

Auntie Lucy paid the company \$250 for a cleaning job. How many hours of cleaning did she pay for?

Ans: \_\_\_\_\_ h

28. The bar graph below shows the number of children in the families living in a block of flats.



How many children are there altogether?

Ans: \_\_\_\_\_

29. The figure below shows a semi-circle with diameter 14 cm.

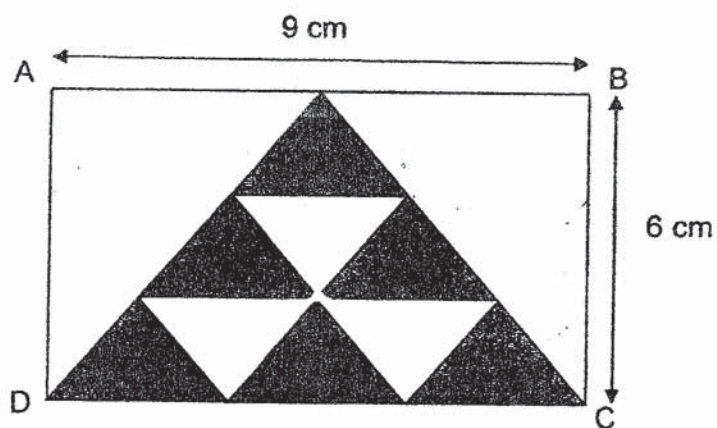


- (a) Find the perimeter of the figure.
- (b) Find the area of the figure. Take  $\pi = \frac{22}{7}$

Ans: (a) \_\_\_\_\_ cm

(b) \_\_\_\_\_ cm<sup>2</sup>

30. The figure below is not drawn to scale. ABCD is a rectangle. Find the area of the shaded triangles.



Ans: \_\_\_\_\_ cm<sup>2</sup>

--- End of Paper 1 ---







**NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1 – 2018  
PRIMARY 6**

**MATHEMATICS  
Paper 2**

**Total Time for Paper 2: 1 hour 30 minutes**

**INSTRUCTION TO CANDIDATES**

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of an approved calculator is expected, where appropriate.

**Marks Obtained**

Total	Max Mark
	55

**Name :** \_\_\_\_\_ (       )

**Class : 6** \_\_\_\_\_

**Date : 8 May 2018**

**Parent's Signature :** \_\_\_\_\_

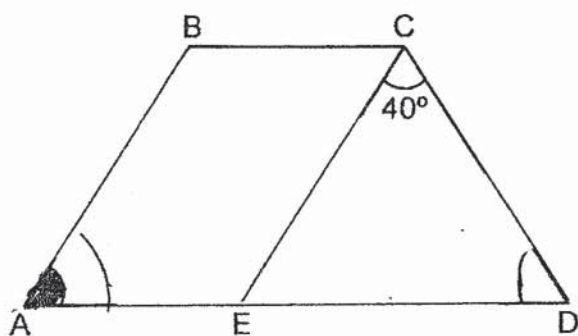
**Paper 2 (55 marks)**

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Questions 1 to 5 carry 2 marks each. Show your workings clearly and write your answer in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

1. The figure below is not drawn to scale.  $CD = CE$  and  $ABCE$  is a parallelogram.

$AED$  is a straight line and  $\angle DCE = 40^\circ$ . Find  $\angle BAE$ .



Ans: \_\_\_\_\_°

2. In the space below, draw a parallelogram  $ABCD$  in which  $AD = 6$  cm and  $\angle ABC = 140^\circ$ . The line  $AB$  has been drawn for you.



3. Mrs Lum prepared 6 l of lemonade. She kept  $\frac{1}{4}$  of the lemonade and filled up as many  $\frac{3}{4}$ -l bottle as she could with the remaining lemonade. How many such  $\frac{3}{4}$ -l bottles did she use?

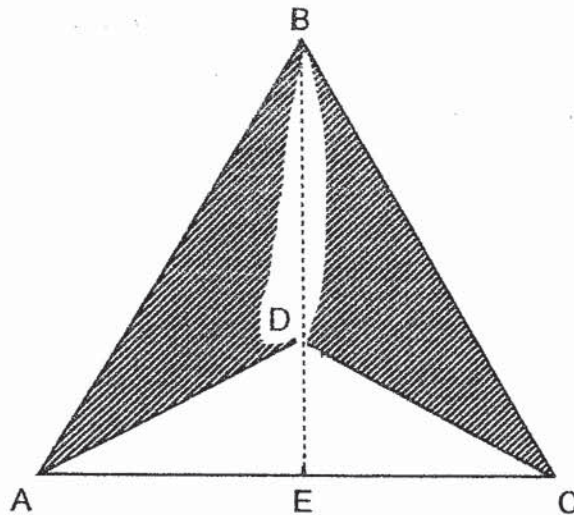
Ans: \_\_\_\_\_

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this space

4. Mr Chin baked 390 chocolate muffins and strawberry muffins. After selling  $\frac{5}{6}$  of the chocolate muffins and  $\frac{1}{3}$  of the strawberry muffins, he had the same number of chocolate muffins and strawberry muffins left. How many chocolate muffins did Mr Chin sell?

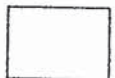
Ans: \_\_\_\_\_

5. In the figure below, not drawn to scale,  $ABC$  and  $ADC$  are overlapping triangles.  $BE$  is three times the length of  $DE$ . The area of triangle  $ADC$  is  $54 \text{ cm}^2$ . What is the area of the shaded part?



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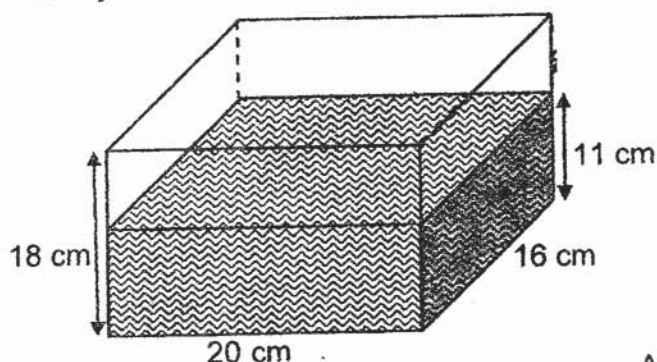
Ans: \_\_\_\_\_  $\text{cm}^2$



For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

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this space

6. A tank which measured 20 cm by 16 cm by 18 cm contained some water as shown in the figure below. The height of the water level in the tank was 11 cm. Christine poured 8 identical bottles of water into the tank to fill it completely. How much water did each bottle contain? Give your answer in ml.



Ans: \_\_\_\_\_ [3]

7. Ashlyn, Betty, Cynthia and Devi saved an average of \$88. Ashlyn and Betty saved \$90 and \$75 respectively. Devi saved \$15 less than Cynthia. How much did Cynthia save?

Ans: \_\_\_\_\_ [3]

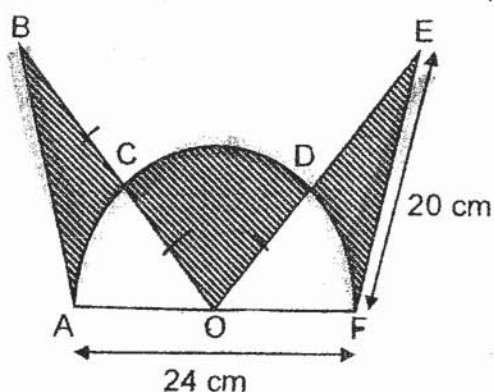


8. At a museum,  $\frac{1}{9}$  of the visitors were women.  $\frac{3}{8}$  of the remaining visitors were men and the rest of the visitors were boys and girls. The number of girls was  $\frac{1}{4}$  the number of boys. Given that there were 660 more boys than girls, what was the total number of visitors?

Do not write in this space

Ans: \_\_\_\_\_ [3]

9. The diagram below which is not drawn to scale is made up of a semicircle and 2 identical triangles ABO and FEO. Given that  $OC = CB$  and  $OD = DE$ , find the perimeter of the shaded parts. (Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ [3]



10. Tom and Jake drove from Town X to Town Y. Tom started his journey at 9 a.m. and travelled at an average speed of 75 km/h. Jake started his journey half an hour later than Tom. At 12 noon, Jake overtook Tom. When Jake reached Town Y at 2 p.m., Tom was 30 km from Town Y. What was Jake's average speed for his whole journey?

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this space

Ans: \_\_\_\_\_ [3]



11. Danny had a piece of circular paper of radius 7 cm. He folded along 2 sides of the 4 dotted lines as shown. Find the area of the unshaded part of the paper as shown in Figure 2. (Take  $\pi = \frac{22}{7}$ )

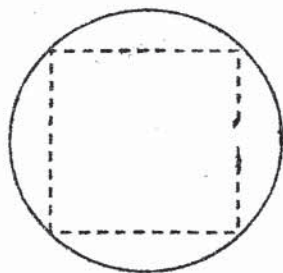


Figure 1

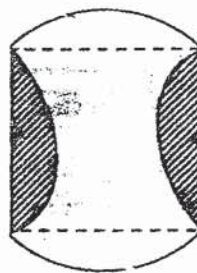
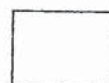


Figure 2

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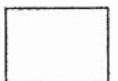
Ans \_\_\_\_\_ [4]



12. Kelvin had 90 more stamps than Nelson. Nelson gave  $\frac{1}{5}$  of his stamps to Kelvin and Kelvin had three times as many stamps as Nelson. How many stamps did the two boys have altogether?

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this space

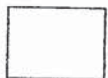
Ans: \_\_\_\_\_ [4]



13. At a carnival, each adult ticket cost \$25 while each child ticket cost \$12. On Saturday, the number of adult tickets sold was 120 fewer than the number of child tickets. On Sunday, the number of adult tickets sold decreased by 10% while the number of child tickets sold increased by 30%. If a total of 816 tickets were sold on Sunday, how much money was collected on Saturday?

Do not write in  
this space

Ans: \_\_\_\_\_ [4]



14. Roy, Stanley, Ted and Umar picked as many sticks as they could during a sports carnival. They were awarded 12 points for each red stick picked and 15 points for each blue stick picked. The table shows the number of sticks picked by three of the four children.

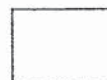
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Player	Number of sticks picked		Total points earned
	Red	Blue	
Roy	20	14	450
Stanley	30	9	495
Ted	15	?	450

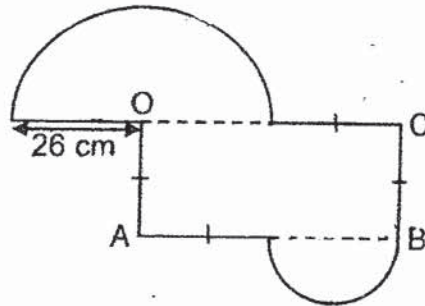
- (a) Roy earned as many points as Ted. How many blue sticks did Ted pick?
- (b) Umar picked as many sticks as Stanley but earned 6 more points. How many blue sticks did Umar pick?

Ans: (a) \_\_\_\_\_[1]

(b) \_\_\_\_\_[3]

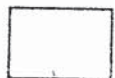


15. The figure below which is not drawn to scale, is made up of 2 semi-circles and a rectangle. O is the centre of the semi-circle. OABC is a rectangle. Find the perimeter of the figure. (Take  $\pi = 3.14$ )



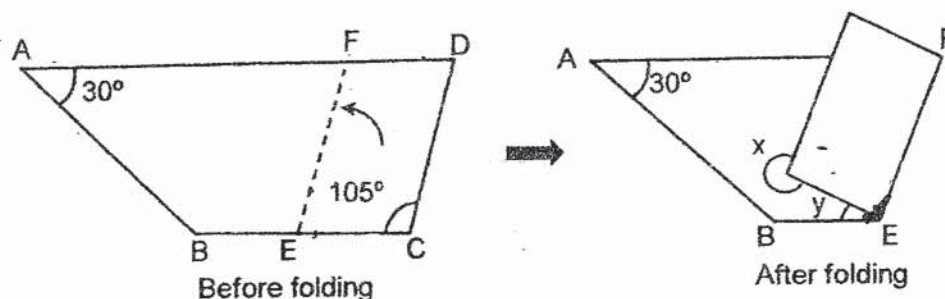
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this space

Ans: \_\_\_\_\_ [4]





16. The following diagram which is not drawn to scale, shows a piece of paper ABCD in the shape of a trapezium.  $\angle BAD = 30^\circ$  and  $\angle BCD = 105^\circ$ . The paper is folded along the line EF which is parallel to CD.



- (a) Find  $\angle x$ .  
(b) Find  $\angle y$ .

Ans: (a) \_\_\_\_\_ [2]

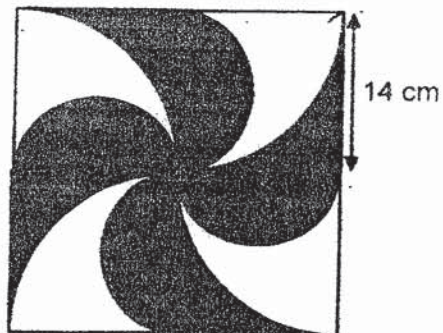
(b) \_\_\_\_\_ [3]



17. The figure below, not drawn to scale, is made up of 4 identical squares, 4 semicircles and 4 quadrants. Find

- (a) the total area of the shaded parts and  
(b) the perimeter of the shaded parts.

(Take  $\pi = \frac{22}{7}$ )



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Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]



-----End of Paper-----



# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : NAN HUA PRIMARY  
 SUBJECT : MATHEMATICS  
 TERM : SA1

## Paper 1

Q1	3	Q4	3	Q7	4	Q10	2	Q13	3
Q2	2	Q5	2	Q8	2	Q11	1	Q14	3
Q3	3	Q6	1	Q9	3	Q12	2	Q15	4

Q16 69100

Q17  $4\frac{1}{2}$

Q18 16.04

Q19 50 cm

Q20 53°

Q21 9

Q22 96 m/min

Q23 (a)  $\frac{3}{5}$

(b) 15.79

Q24 (a) 1092

(b) 2019



Q25 (a) 3

(b)  $\frac{1}{8}$  kg.

Q26 S(80 - 11k)

Q27 9 h

Q28 105

Q29 (a) 36 cm

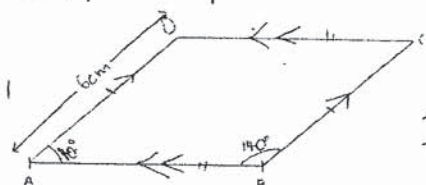
(b) 77 cm<sup>2</sup>

Q30 18 cm<sup>2</sup>

Paper 2

Q1  $\angle BAE = 70^\circ$

Q2



Q3  $\frac{3}{4} \times 6 = 4\frac{1}{2}$  (remaining lemonade)

$$4\frac{1}{2} = \frac{9}{2}$$

$$\frac{9}{2} \div \frac{3}{4} \Rightarrow \underline{6 \text{ bottles}}$$

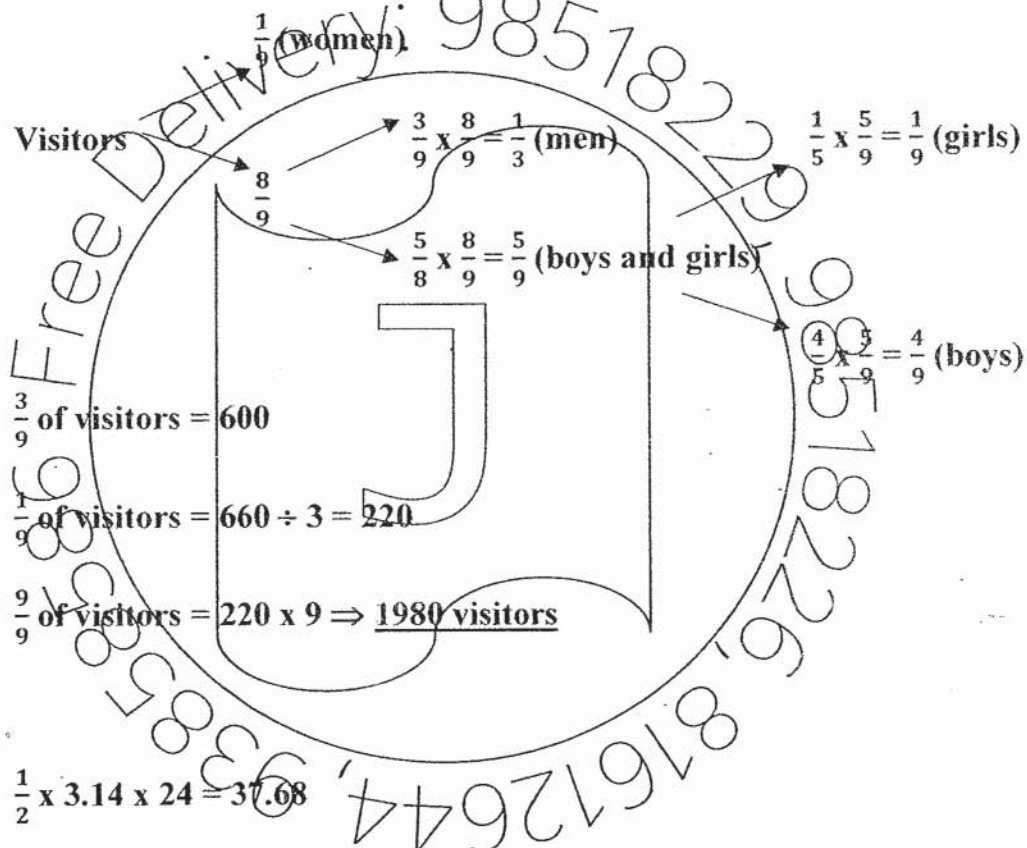
Q4  $52 \times 5 \Rightarrow \underline{260 \text{ chocolate muffins}}$

Q5  $(\frac{1}{2} \times 18 \times 18) - 54 \Rightarrow \underline{108 \text{ cm}^2}$

Q6  $18 - 11 = 7$   
 $7 \times 20 \times 16 = 2240$   
 $8u = 2240$   
 $U = 2240 \div 8 \Rightarrow \underline{280 \text{ ml}}$

Q7 Total  $\rightarrow \$88 \times 4 = \$352$   
 $\$352 - \$90 - \$75 = \$187$   
 $\$187 + \$15 = \$202$   
 $\$202 \div 2 \Rightarrow \underline{\$101}$

Q8



Q9  $\frac{1}{2} \times 3.14 \times 24 = 37.68$

$12 \times 4 = 48$   
 $20 \times 2 = 40$   
 $40 + 48 + 37.68 \Rightarrow \underline{125.68 \text{ cm}}$



Q10 Jake's average speed  $\rightarrow 2 + 2\frac{1}{2} = 4\frac{1}{2}$

$\rightarrow 225 + 180 = 405$

$\rightarrow 405 \text{ km} / 4\frac{1}{2} \text{ h}$

$\rightarrow 45 \text{ km} / \frac{1}{2} \text{ h}$

$\Rightarrow \underline{90 \text{ km/h}}$

Q11  $\frac{1}{2} \times 14 \times 7 \times 2 = 98$

$\frac{22}{7} \times 7 \times 7 = 154$

$\frac{154 - (98)}{4} = 14$

$98 - (14 \times 2)$   
 $98 - 28 = 70$

Unshaded  $= 70 + 28 \Rightarrow \underline{98 \text{ cm}^2}$

Q12  $3p = 6u + 90$

$1p = 2u + 30$

$1p = 4u$

$4u = 2u + 30$

$2u = 30$

$10u = 30 \times 5 = 150$

$150 + 90 \Rightarrow \underline{240 \text{ stamps}}$

Q13  $9u + 13u + 156 = 816$

$22u \rightarrow 816 - 156 = 660$

$u \rightarrow 660 \div 22 = 30$

$\$250u + \$120u + \$1440 = \$370u + \$1440$

$370u = 30 \times 370 = \$11100$

$\$11100 + \$1440 \Rightarrow \underline{\$12540}$

Q14 (a)  $210 + 240 = 450$   
 $15x + 180 = 450$   
 $15x \rightarrow 450 - 180 = 270$   
 $x \rightarrow 270 \div 15 \Rightarrow \underline{18 \text{ blue sticks}}$

(b) Assume Umar picked 39 red stickers:  
 $39 \times 12 = 468$   
 $501 - 468 = 33$   
 $15 - 12 = 3$   
 $33 \div 3 \Rightarrow \underline{11 \text{ blue sticks}}$

Q15  $\frac{1}{2} \times 3.14 \times 52 = 81.64$

$\frac{1}{2} \times 3.14 \times 26 = 40.82$

$5 \times 26 = 130$

$130 + 40.82 + 81.64 \Rightarrow \underline{252.46 \text{ cm}}$

Q16 (a)  $\angle x = 360^\circ - 105^\circ \Rightarrow \underline{255^\circ}$

(b)  $\angle y = 180^\circ - 75^\circ - 75^\circ \Rightarrow \underline{30^\circ}$

Q17 (a)  $2 \times \frac{22}{7} \times 7 \times 7 = 308$

$(28 \times 28) - (\frac{22}{7} \times 14 \times 14)$

$784 - 616 = 168$

$308 + 168 \Rightarrow \underline{476 \text{ cm}^2}$

(b)  $\frac{22}{7} \times 28 = 88$

$2 \times \frac{22}{7} \times 14 = 88$

$4 \times 14 = 56$

$56 + 88 + 88 \Rightarrow \underline{232 \text{ cm}}$

End





**RAFFLES GIRLS' PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1  
MATHEMATICS (PAPER 1)  
PRIMARY 6**

Name: \_\_\_\_\_ (      )

Form Class: P6 \_\_\_\_\_

Math Teacher: \_\_\_\_\_

Date: 7 May 2018

Duration: 1 hour

<b>Your Paper 1 Score (Out of 45 marks)</b>	
<b>Your Paper 2 Score (Out of 55 marks)</b>	
<b>Your Total Score (Out of 100 marks)</b>	
<b>Parent's Signature</b>	

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. **NO** calculator is allowed for this paper.



Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4). Shade your answer (1, 2, 3 or 4) on the OAS provided.  
All diagrams are not drawn to scale.

1. Express  $4\frac{4}{5}$  as a decimal.

- (1) 4.40
- (2) 4.45
- (3) 4.54
- (4) 4.80

2.  $208\,709 = 200\,000 + \underline{\hspace{2cm}} + 700 + 9$

- (1) 80 000
- (2) 8000
- (3) 800
- (4) 80

3. What is the missing fraction in the box?

$$\frac{13}{6} + \frac{2}{3} = \boxed{\phantom{00}}$$

- (1)  $1\frac{2}{3}$
- (2)  $1\frac{5}{9}$
- (3)  $2\frac{1}{2}$
- (4)  $2\frac{5}{6}$



4. A durian is  $2\frac{1}{4}$  times as heavy as an apple.

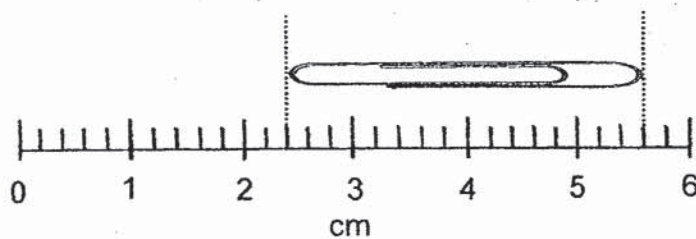
What is the ratio of the mass of the durian to the mass of the apple?

- (1) 7 : 4
- (2) 4 : 7
- (3) 9 : 4
- (4) 4 : 9

5. Find the value of  $x + \frac{x}{5}$  when  $x = 5$ .

- (1) 10
- (2) 6
- (3) 5
- (4)  $1\frac{1}{5}$

6. What is the length of the paper clip shown below?



- (1) 1.6 cm
- (2) 2.4 cm
- (3) 3.2 cm
- (4) 5.6 cm

7.

Arrange the following fractions from the largest to the smallest.

$$\frac{4}{7}, \frac{2}{3}, \frac{5}{6}$$

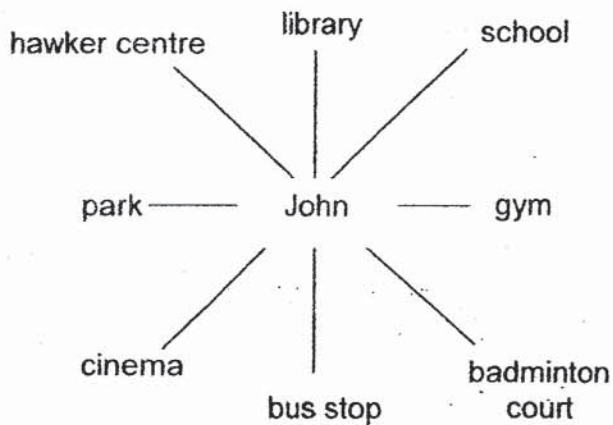
(1)  $\frac{5}{6}, \frac{2}{3}, \frac{4}{7}$

(2)  $\frac{2}{3}, \frac{4}{7}, \frac{5}{6}$

(3)  $\frac{4}{7}, \frac{2}{3}, \frac{5}{6}$

(4)  $\frac{5}{6}, \frac{4}{7}, \frac{2}{3}$

8.



John is facing the school. After he turns  $135^\circ$  anti-clockwise, he will be facing the \_\_\_\_\_.

(1) park

(2) cinema

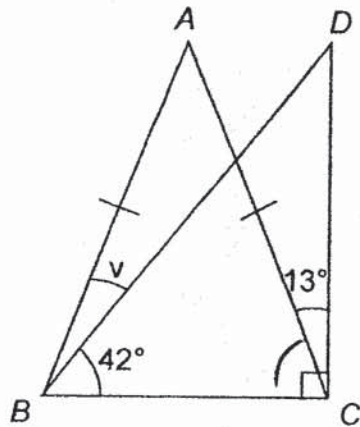
(3) bus stop

(4) badminton court

9. Express  $\frac{1}{25}$  as a percentage.

- (1) 0.25 %
- (2) 4 %
- (3) 25 %
- (4) 40 %

10. ABC is an isosceles triangle. DBC is a right-angled triangle. Find  $\angle v$ .

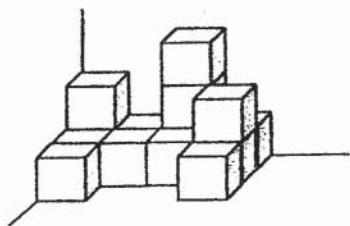


- (1)  $35^\circ$
- (2)  $48^\circ$
- (3)  $55^\circ$
- (4)  $77^\circ$

11. A shop sells 3 pens for \$2 and 5 pencils for \$3. John bought an equal number of pens and pencils. What was the least amount he could have spent?

- (1) \$6
- (2) \$15
- (3) \$19
- (4) \$21

12. The figure is made up of 1-cm cubes. Rajah wants to form a cube of sides 4 cm. How many more 1-cm cubes does he need?



- (1) 14
- (2) 16
- (3) 50
- (4) 64

13. Xiao Ming had the same number of 20-cent and 50-cent coins. He had a total of \$14.70. What was the total value of all the 20-cent coins?
- (1) \$4.20
  - (2) \$6.30
  - (3) \$10.50
  - (4) \$21.00
14. Mrs Tan spent 5% of her salary on transport and 40% of the remaining salary on household expenses. What percentage of her salary was left?
- (1) 38 %
  - (2) 43 %
  - (3) 55 %
  - (4) 57 %
15. In a book fair, the ratio of the number of comic books to the number of magazines was 5 : 7. After selling 12 comic books to the shoppers, the ratio of the number of comic books left to the number of magazines left was 3 : 5. How many magazines were there in the end?
- (1) 63
  - (2) 75
  - (3) 105
  - (4) 168

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale.

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16. Evaluate  $40 \div 2 \times 10 + 5$

Ans: \_\_\_\_\_

17. A box of markers cost \$9.60. Mrs Tan bought 78 boxes of markers.  
How much did she pay altogether?

Ans: \$ \_\_\_\_\_

18. Find the value of  $13 - 2.87$

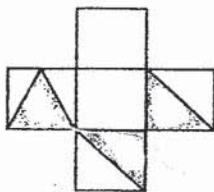
Ans: \_\_\_\_\_



19. The subway trains depart at intervals of 15 minutes. Find the time of departure of the fifth train if the first train departs at 4.15 p.m.

Ans: \_\_\_\_\_ p.m.

20. The figure is made up of 5 squares. What fraction of the figure is shaded?



Ans: \_\_\_\_\_

Questions 21 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale.

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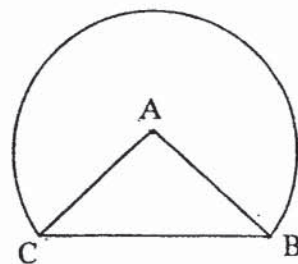
21. John spends  $\$ \frac{y}{7}$  everyday on food. How much does he spend on food in 2 weeks?

Ans: \$ \_\_\_\_\_

22. Josh is  $1\frac{7}{10}$  m tall. He is  $\frac{3}{5}$  m taller than Kristen. What is their total height? Leave your answer in the simplest form.

Ans: \_\_\_\_\_ m

23. The figure shows a  $\frac{3}{4}$  circle of diameter 14 cm. A is the centre of the circle. Find the area of triangle ABC.



Ans: \_\_\_\_\_ cm<sup>2</sup>

24. The average of 4 numbers was 21. When a number was added, the average became 23. What was the value of the number added?

Ans: \_\_\_\_\_

25. Terry started cycling from Town A to Town B at noon. At the same time, Jim started cycling from Town B to Town A. They met each other at 2 p.m. The speed of Terry is twice as fast as Jim. Given that the distance between Town A and Town B is 45 km, find Jim's speed.

Ans: \_\_\_\_\_ km/h

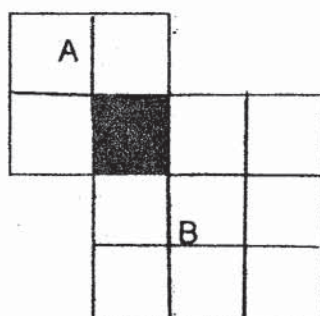
26. It takes 3 men to paint a block of flats completely in 22 days. Each man takes equal number of days to paint a block of flats. How many days will it take 2 men to paint 3 similar block of flats completely?

Ans: \_\_\_\_\_

27. A container has a mass of 3.8 kg when it is  $\frac{3}{5}$  filled with water. Its mass becomes 3.3 kg when it is  $\frac{1}{2}$  filled with water. What is the mass of the empty container?

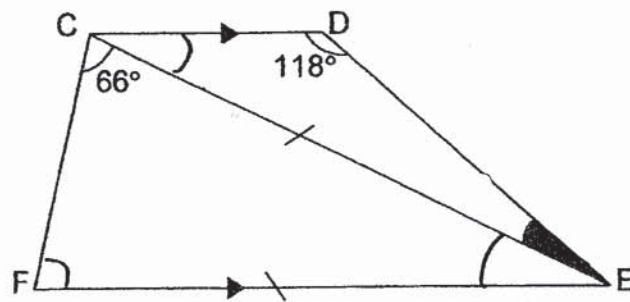
Ans: \_\_\_\_\_ kg

28. The figure is made up of 2 squares, A and B.  $\frac{1}{4}$  of A is shaded and  $\frac{1}{9}$  of B is shaded. The area of the shaded part is  $5 \text{ cm}^2$ . Find the area of the figure.



Ans: \_\_\_\_\_  $\text{cm}^2$

29. The figure shows a trapezium CDEF and an isosceles triangle CEF. Find  $\angle CED$ .



Ans: \_\_\_\_\_ $^\circ$



30. Mdm Goh had 6 kg of sugar. She wanted to repack the sugar into identical packets. Each packet has a mass of  $\frac{4}{5}$  kg.

Based on the information above, put a tick in the correct box.

	True	False	Impossible to tell
a) Mdm Goh had 8 packets of $\frac{4}{5}$ kg of sugar after repacking.			
b) If Mdm Goh had 8 kg of sugar, she would be able to repack all the sugar into identical packets of $\frac{4}{5}$ kg without any remainder.			

**End of Paper**

☺ Please check your work carefully ☺



**RAFFLES GIRLS' PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1  
MATHEMATICS (PAPER 2)  
PRIMARY 6**

Name: \_\_\_\_\_ (   )

Form class: P6 \_\_\_\_\_

Math Teacher: \_\_\_\_\_

Date: 7 May 2018

Duration: 1 h 30 min

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3. Answer **ALL** questions and show all working clearly.
4. The use of calculator is allowed for this paper.

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. (10 marks)

---

1. Ann has  $x$  stickers. Betty has  $(x + 5)$  more stickers than Ann. How many stickers do they have altogether?

Ans : \_\_\_\_\_ [2]

2. What is the price of the chandelier after the discount?



Usual price : \$568

Discount : 15 %

Ans : \$ \_\_\_\_\_ [2]

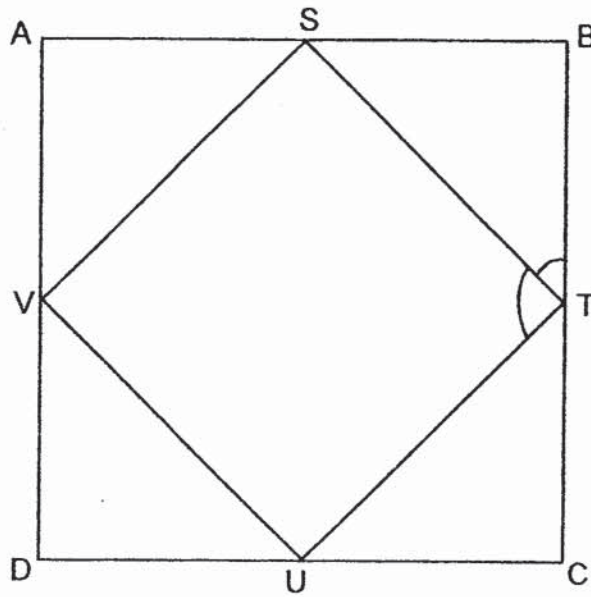
3. Mrs Wong sold  $\frac{1}{4}$  of her chicken pies in the morning. She sold another 36 chicken pies in the afternoon. If the ratio of the total number of chicken pies sold to the number of chicken pies left was the same, how many chicken pies did she have at first?

Ans : \_\_\_\_\_ [2]

4. Kim bought 3 soccer balls for \$90. She also bought an equal number of identical volley balls but at a different price. The average price of all the balls she bought was \$26. What was the price of each volleyball?

Ans : \$ \_\_\_\_\_ [2]

5. ABCD is a square and STUV are midpoints of AB, BC, CD and DA respectively. Find  $\angle BTU$ .



Ans: \_\_\_\_\_ [2]

For questions 6 to 17, show your working clearly in the space provided for each question and write your answers in the spaces provided.  
The number of marks available is shown in brackets [ ] at the end of each question or part-question. All diagrams are not drawn to scale.

(45 marks)

- 
6. The cost of admission tickets for 2 adults and 3 children to Curo Theme Park is \$183. The cost of admission tickets for 3 adults and 2 children is \$192. What is the cost of 1 adult ticket?

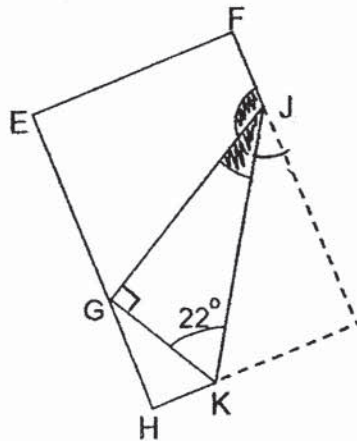
Ans: \_\_\_\_\_ [3]

7. Fathin receives \$0.80 more pocket money than Halim every day. Each of them spends \$1.40 a day and saves the rest of their pocket money. If Halim saves \$50 and Fathin saves \$90, how much pocket money does Halim receive for a day?

Ans: \_\_\_\_\_ [3]



8. EFGH is a rectangular piece of paper folded along JK.  $\angle JKG = 22^\circ$ .

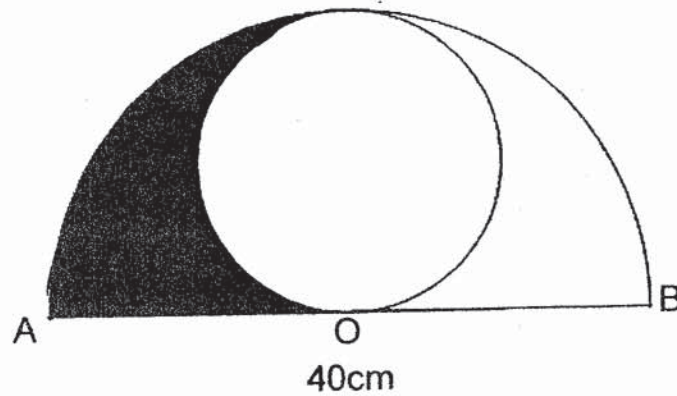


- (a) Find  $\angle GJK$ .  
 (b) Find  $\angle GJF$ .

Ans: a) \_\_\_\_\_ [1]

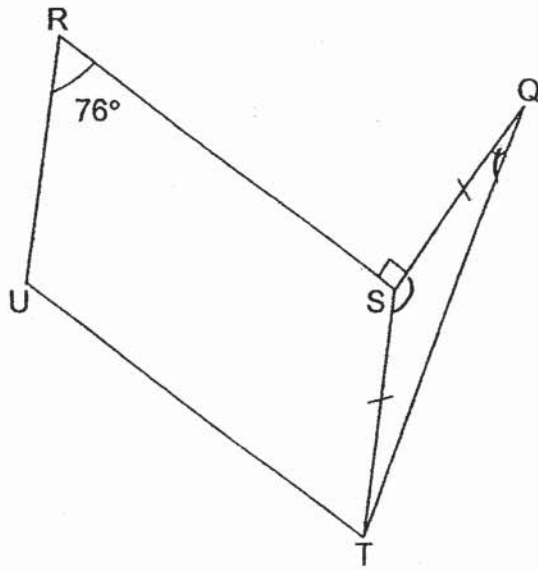
b) \_\_\_\_\_ [2]

9. The figure is made up of a circle and a semicircle. O is the centre of the semicircle. Given that the length of AOB is 40 cm, find the perimeter of the shaded part.  
Take  $\pi = 3.14$



Ans: \_\_\_\_\_ [3]

10. RSTU is a parallelogram. SQT is an isosceles triangle.  
 $\angle URS$  is  $76^\circ$ . Find  $\angle SQT$ .



Ans: \_\_\_\_\_ [3]

11. Jane and Ella travelled from Town A to Town B. Jane started earlier at 1 p.m. and travelled at 85 km/h. She took 1 h 48 min. Ella started later and travelled at 90 km/h. She arrived at Town B at the same time as Jane. What time did Ella leave Town A? (Leave your answer in 12-hour clock)

Ans: \_\_\_\_\_ [4]

12. Ali, Ben and Devi had equal number of beads. Ali packed all his beads equally into 3 packets. Ben packed all his beads equally into 6 packets. Devi packed all her beads equally into 9 packets. 1 packet of Ali's beads, 3 packets of Ben's beads and 4 packets of Devi's beads added up to 759. How many beads did they have altogether?

Ans: \_\_\_\_\_ [4]

13. Shawn and Josh each had the same amount of syrup for making lemonade. The same amount of syrup was used for making each cup of lemonade. Shawn made 30 cups of lemonade and had 552 ml of syrup left. Josh made 6 cups of lemonade and had 1.2 litres of syrup left.

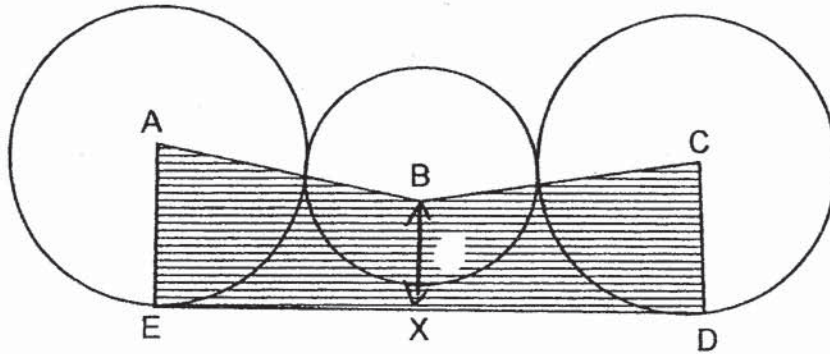
- (a) What was the volume of syrup needed to make 1 cup of lemonade?
- (b) What was the maximum number of cups of lemonade that can be made with the remaining syrup left from both the boys?

Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [2]



14. A, B and C are the centres of Circle A, Circle B, and Circle C respectively. The radius of Circle A and Circle C is 12 cm, and the radius of Circle B is 8 cm. The length of BX is 9 cm and the perimeter of figure ABCDE is 102 cm. Find the area of the shaded figure.



Ans: \_\_\_\_\_ [4]

15. At a concert, the price of admission ticket of each adult was \$120 and the price of admission ticket of each child was \$70. On the first day, there were 1300 people. 640 of them were adults and the rest were children. On the second day, there were 880 adults at the concert and the number of children increased by 30%.

- (a) What was the percentage increase of the adults on the second day?
- (b) How much money was collected at the concert on the second day?

Ans: a) \_\_\_\_\_ [1]

b) \_\_\_\_\_ [3]

16. During an event, Mrs Wang ordered 880 buns and tarts from a bakery. The cost of a tart was \$1.50 and it was 3 times the cost of a bun.  $\frac{3}{5}$  of the tarts and  $\frac{2}{7}$  of the buns were eaten. The number of tarts and buns left was 550.

- (a) How many buns were eaten?
- (b) How much did Mrs Wang paid in total for the buns?

Ans: a) \_\_\_\_\_ [4]

b) \_\_\_\_\_ [1]

17. The ratio of the number of pupils in 6H to the number of pupils in 6J was 4 : 9.  
140 magazines were given to the pupils to be shared so that each pupil in 6H received 2 magazines while each pupil in 6J received 3 magazines.

- (a) How many pupils were there in 6J?
- (b)  $66\frac{2}{3}\%$  of the pupils in 6J had decided to give  $\frac{8}{9}$  of their magazines to the pupils in 6H to be shared out equally. What was the new number of magazines each of these pupils have in 6H after receiving them from the pupils in 6J?

Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [3]

**End of Paper**  
**Please check your work carefully ☺**



# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : RAFFLES GIRLS' PRIMARY  
 SUBJECT : MATHEMATICS  
 TERM : SA1

## Paper 1

Q1	4	Q4	3	Q7	1	Q10	1	Q13	1
Q2	2	Q5	2	Q8	1	Q11	3	Q14	4
Q3	4	Q6	3	Q9	2	Q12	3	Q15	3

Q16 205

Q17 \$748.80

Q18 10.13

Q19 5:15 pm

Q20  $\frac{3}{10}$

Q21 \$2y

Q22  $2\frac{4}{5}$  m

Q23 24.5 cm<sup>2</sup>

Q24 31

Q25 7.5 km/h

Q26 99 days

Q27 0.8 kg



Q28  $60 \text{ cm}^2$

Q29  $14^\circ$

- Q30 a) False  
b) True

Paper 2

Q1 Betty's stickers  $\rightarrow x + x + 5 = 2x + 5$   
Total stickers  $\rightarrow x + 2x + 5 \Rightarrow \underline{(3x + 5)}$

Q2  $100\% - 15\% \rightarrow 85\%$   
 $568 \times 85\% \Rightarrow \underline{\$482.80}$

Q3  $\frac{1}{4} + \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$

$(36 \div 36) = 72$

$1 \div \frac{1}{2} = \frac{1}{\frac{1}{2}} = \frac{2}{1} = 2$

$\frac{1}{2} \rightarrow 72$

$1 \rightarrow 72 \times 2 \Rightarrow \underline{144 \text{ chicken pies}}$

Q4  $3 + 3 = 6$   
 $26 \times 6 = 156$  (total cost)  
 $156 - 90 = 66$  (cost of volley balls)  
 $66 \div 3 \Rightarrow \underline{\$22}$

Q5  $180^\circ \div 4 \times 3 \Rightarrow \underline{135^\circ}$

Q6  $2A + 3C = 183$   
 $3A + 2C = 192$   
 $4A + 6C = 366$   
 $9A + 6C = 576$   
 $9A - 4A = 5A$   
 $5A = 576 - 366 \rightarrow 210$   
 $A = 210 \div 5 \Rightarrow \underline{\$42}$

Q7  $90 - 50 = 40$   
 $40 \div 0.80 = 50$   
 $50 \div 50 = 1$   
 $1 + 1.40 \Rightarrow \underline{\$2.40}$

Q8 (a)  $180^\circ - 90^\circ - 22^\circ \Rightarrow \underline{68^\circ}$   
 (b)  $180^\circ - 68^\circ - 68^\circ \Rightarrow \underline{44^\circ}$

Q9  $\frac{1}{4} \times 3.14 \times 40 = 31.4$   
 $\frac{1}{2} \times 3.14 \times 20 = 31.4$   
 $40 \div 2 = 20$   
 $31.4 + 31.4 + 20 \Rightarrow \underline{82.8 \text{ cm}}$

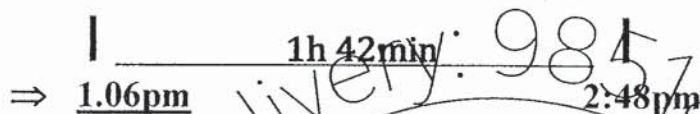
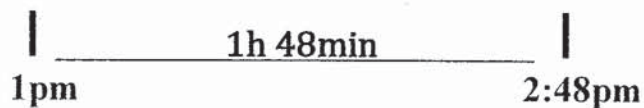
Q10  $180^\circ - 76^\circ = 104^\circ$   
 $360^\circ - 104^\circ - 90^\circ = 166^\circ$   
 $180^\circ - 166^\circ = 14^\circ$   
 $14^\circ \div 2 \Rightarrow \underline{7^\circ}$

Q11  $1\text{h } 48\text{min} = 1.8\text{h}$

$85 \times 1.8 = 153$

$153 \div 90 = 1.7$

$1.7 = 1\text{h } 42\text{min}$



Q12  $6 + 9 + 8 = 23$

$759 \div 23 = 33$

$33 \times 18 = 594$

$594 \times 3 \Rightarrow \underline{1782 \text{ beads}}$

Q13 (a)  $1.2 \ell = 1200 \text{ ml}$

$1200 - 552 = 648$

$30 - 6 = 24$

$648 \div 24 \Rightarrow \underline{27 \text{ ml}}$

(b)  $552 + 1200 = 1752$

$1752 \div 27 = 64 \text{ R } 24 \Rightarrow \underline{64 \text{ cups}}$

Q14  $102 - 12 - 12 - 12 - 12 - 8 - 8 = 38$

$38 \div 2 = 19$

$(9 + 12) \times 19 \div 2 = 199.5$

$199.5 \times 2 \Rightarrow \underline{399 \text{ cm}^2}$

Q15 (a)  $880 - 640 = 240$

$\frac{240}{640} \times 100\% \Rightarrow \underline{37.5\%}$

(b)  $1300 - 640 = 660$   
 $130\% \times 660 = 858$   
 $858 \times 70 = 60060$   
 $880 \times 120 = 105600$   
 $60060 + 105600 \Rightarrow \underline{\$165660}$

Q16 (a)  $5T + 7B = 880$   
 $2T + 5B = 550$   
 $10T + 14B = 1760$   
 $10T + 25B = 2750$   
 $25B - 14B = 11B$   
 $11B = 2750 - 1760 = 990$   
 $B = 990 \div 11 = 90$   
 $2B = 90 \times 2 \Rightarrow \underline{180 \text{ buns}}$

(b)  $7B = 90 \times 7 = 630$   
 $\$1.50 \div 3 = \$0.50$   
 $\$0.50 \times 630 \Rightarrow \underline{\$315}$

Q17 (a)  $4 \times 2 = 8$   
 $9 \times 3 = 27$   
 $8 + 27 = 35$   
 $140 \div 35 = 4$   
 $4 \times 9 \Rightarrow \underline{36 \text{ pupils}}$

(b)  $4 \times 9 = 36$   
 $66\frac{2}{3}\% \times 36 = 24$

$24 \times 3 = 72$   
 $\frac{8}{9} \times 72 = 64$   
 $64 \div 16 = 4$   
 $2 + 4 \Rightarrow \underline{6 \text{ magazines}}$

End





**ROSYTH SCHOOL**  
**2018 SEMESTRAL ASSESSMENT**  
**MATHEMATICS**  
**PAPER 1**  
**PRIMARY 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Date: 8 May 2018

Parent's Signature: \_\_\_\_\_

Total Time for Booklets A and B : 1 hour

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**Booklet A**

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. Shade your answers in the Optical Answer Sheet (OAS) provided.
4. You are **not** allowed to use a calculator.
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 ( <b>Booklet A</b> )	20	

\* This booklet consists of **8** pages (including this cover page)





This paper is not to be reproduced in part or whole without the permission of the Principal.  
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

(20 marks)

1. Round off 50.242 to the nearest hundredth.

- (1) 50
- (2) 50.2
- (3) 50.24
- (4) 50.25

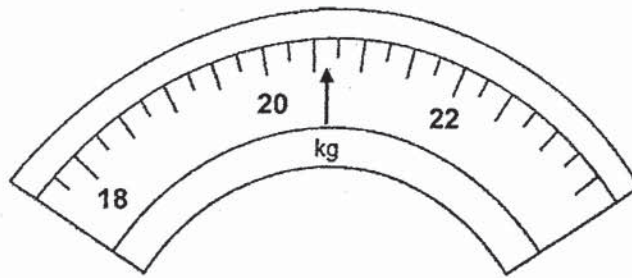
2. Find the sum of the common factors of 8 and 12.

- (1) 6
- (2) 7
- (3) 14
- (4) 43

3. There are 60 members in a choir. 28 of them are boys. What is the ratio of the number of girls to the number of boys?

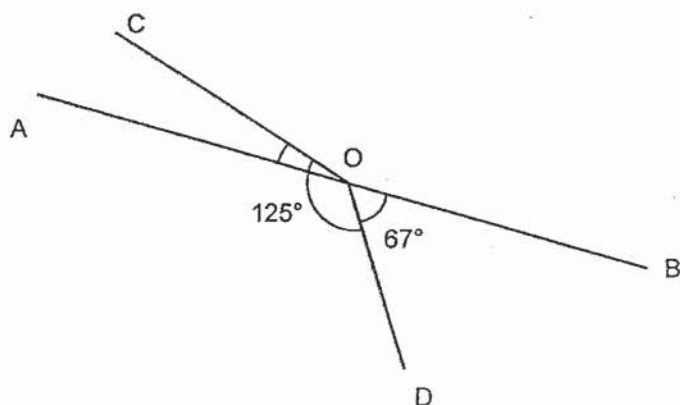
- (1) 7 : 8
- (2) 7 : 15
- (3) 8 : 7
- (4) 8 : 15

4. Which one of the following readings is closest to the one shown on the weighing scale below?



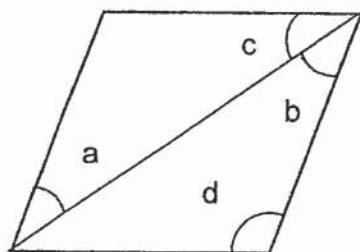
- (1) 20.2 kg  
(2) 20.4 kg  
(3) 20.6 kg  
(4) 21.2 kg
5. Erwin drove for 150 minutes to reach his work place at 2.30 p.m. At what time did he start driving?
- (1) 12.00 a.m.  
(2) 12.00 p.m.  
(3) 5.00 p.m.  
(4) 8.00 p.m.
6. Harry had  $\$5x$ . His father gave him  $\$3x$ . He bought a storybook for  $\$14$ . How much money had he left?
- (1)  $\$8x$   
(2)  $\$(2x - 14)$   
(3)  $\$(14 - 8x)$   
(4)  $\$(8x - 14)$

7. In the figure below, AB is a straight line.  $\angle BOD = 67^\circ$  and  $\angle COD = 125^\circ$ . Find  $\angle AOC$ .



- (1)  $12^\circ$
- (2)  $23^\circ$
- (3)  $55^\circ$
- (4)  $67^\circ$

8. Which statement about the rhombus is not true?



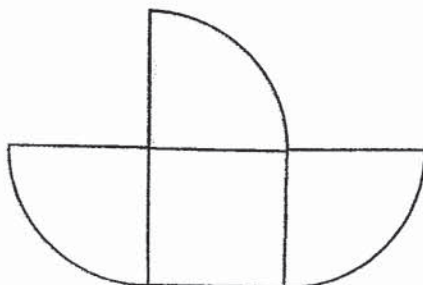
- (1)  $\angle a = \angle b$
- (2)  $\angle b = \angle c$
- (3)  $\angle a + \angle b + \angle d = 180^\circ$
- (4)  $\angle a + \angle b + \angle c + \angle d = 180^\circ$

9. The table below shows the English test score obtained by a pupil.

English	Score
Test 1	20
Test 2	25

Find the percentage increase in his score.

- (1) 10%
- (2) 20%
- (3) 25%
- (4) 80%
10. The figure below is not drawn to scale. It is made up of a square and 3 identical quadrants with radius 8 cm. Find the perimeter of the figure in terms of  $\pi$ .

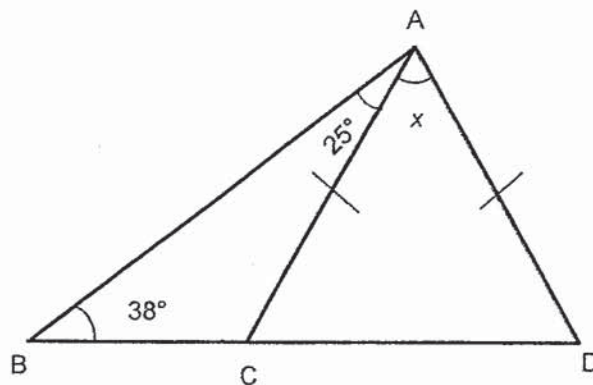


- (1)  $(6\pi)$  cm
- (2)  $(6\pi + 32)$  cm
- (3)  $(12\pi)$  cm
- (4)  $(12\pi + 32)$  cm

11. Wati spends  $\frac{3}{5}$  of her monthly allowance on food. She spends  $\frac{1}{5}$  of the remainder on transport and saves the rest. What fraction of her monthly allowance does she save?

- (1)  $\frac{2}{5}$
- (2)  $\frac{4}{5}$
- (3)  $\frac{8}{25}$
- (4)  $\frac{17}{25}$

12. In the figure, ACD is an isosceles triangle and BCD is a straight line. Find  $\angle x$ .



- (1)  $54^\circ$
- (2) 63
- (3)  $117^\circ$
- (4)  $126^\circ$

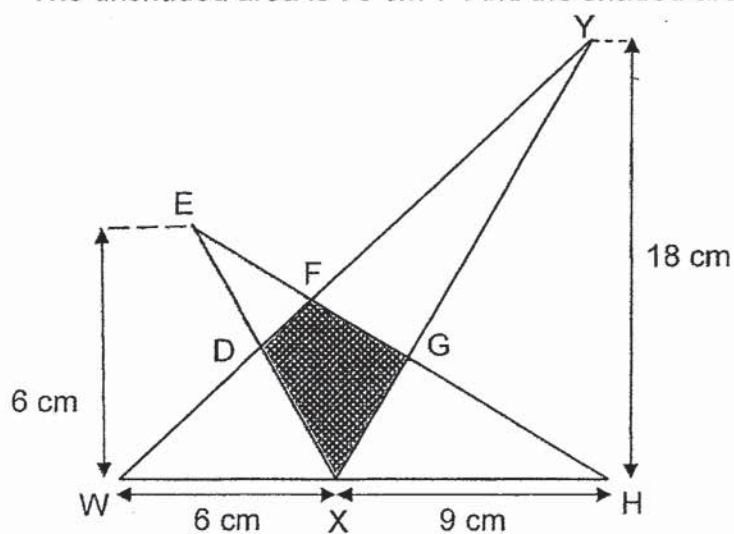
13. 80 letters are arranged in the sequence as shown below:

WOLVERINEWOLVERINEWOL.....

How many times does the letter 'E' appear?

- (1) 16
  - (2) 17
  - (3) 24
  - (4) 4
14. Chee Kit has 3 strings of different lengths. The total length of the 3 strings measured 50 cm. When he doubled the length of the first string, halved the second string and increased the third string by 6 cm, the 3 strings became equal in length. What was the length of the third string at first?
- (1) 8 cm
  - (2) 10 cm
  - (3) 14 cm
  - (4) 32 cm

15. The figure below, not drawn to scale, is made up of triangles WXY and EHX. The unshaded area is  $70 \text{ cm}^2$ . Find the shaded area DFGX.



- (1)  $5.5 \text{ cm}^2$
- (2)  $11 \text{ cm}^2$
- (3)  $27 \text{ cm}^2$
- (4)  $81 \text{ cm}^2$

(Go on to Booklet B).







**ROSYTH SCHOOL  
2018 SEMESTRAL ASSESSMENT  
MATHEMATICS  
PAPER 1  
PRIMARY 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Date: 8 May 2018

Parent's Signature: \_\_\_\_\_

Total Time for Booklets A and B : 1 hour

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**Booklet B**

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. You are **not** allowed to use a calculator.
4. Write your answers in the booklet.
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	25	

\* This booklet consists of 8 pages (including this cover page).



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

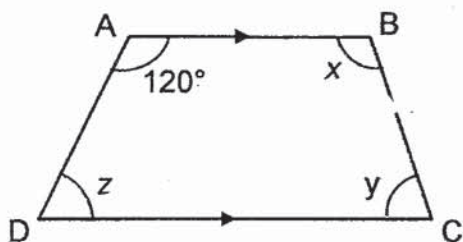
(5 marks)

Do not write  
in this space

16. Find the value of  $48 + 96 \div 4 - 2 \times 16$ .

Ans: \_\_\_\_\_

17. In the figure below, AB is parallel to CD.  
Find the value of  $\angle x + \angle y + \angle z$ .

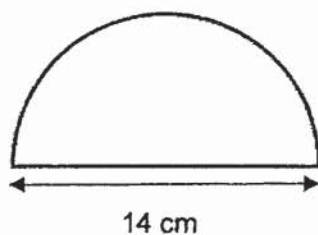


Ans: \_\_\_\_\_ °

18. The ratio of the number of boys to the number of girls to the number of adults at a carnival is 2 : 3 : 5. What percentage of the children are girls?

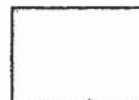
Ans: \_\_\_\_\_ %

19. Find the perimeter of the semicircle. Take  $\pi = \frac{22}{7}$ .

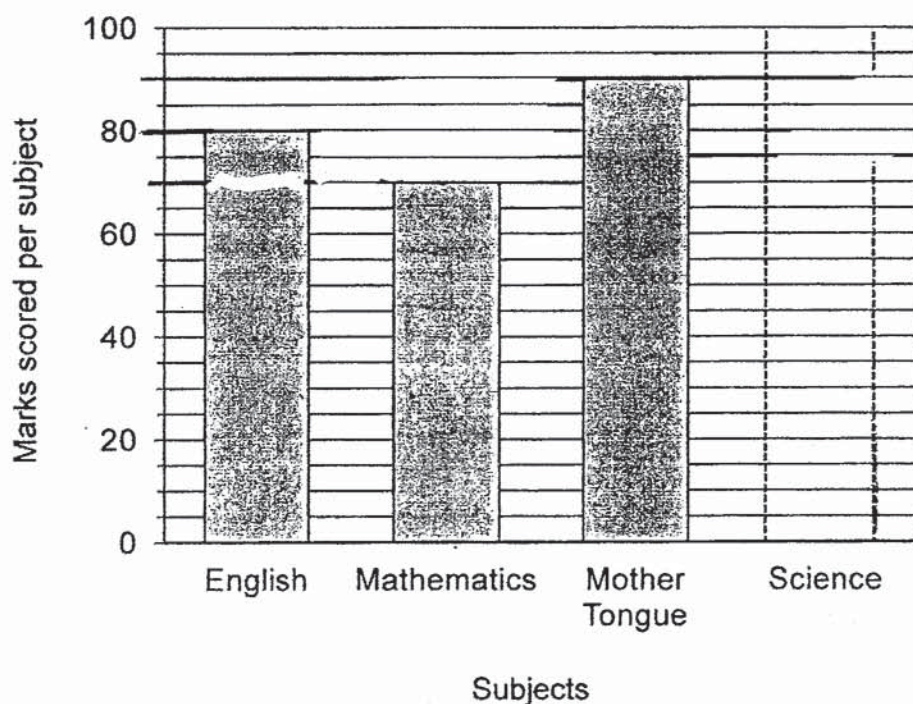


Ans: \_\_\_\_\_ cm

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in this space



20. The graph shows the marks Jane scored for each subject. The mark scored for Science is equal to the average marks she scored for the other three subjects. Draw the bar for Science in the graph.



Questions 21 to 30 carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

Do not write  
in this space

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

(20 marks)

21. The average mass of 4 parcels is 1.6 kg. After two parcels with masses 1.3 kg and 1.04 kg are removed, what is the average mass of the remaining parcels?

Ans: \_\_\_\_\_ kg

22. At Rosania Café, Puay Hoon paid \$12 for 2 cups of coffee and 1 cup of tea.

The cost of each cup of tea was  $\frac{2}{3}$  the cost of each cup of coffee. How much did each cup of coffee cost?

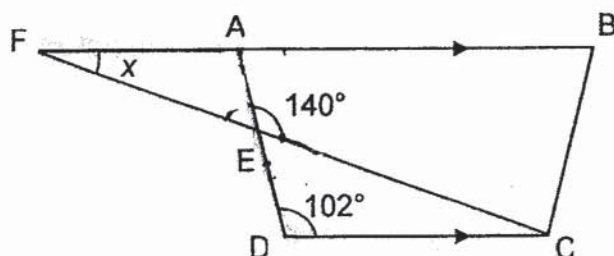
Ans: \$ \_\_\_\_\_

23. Hidayat has 8 m of string. He cuts the string into pieces, each measuring  $\frac{3}{4}$  m long and has some string left. Find the length of the remaining string left.

Do not write  
in this space

Ans: \_\_\_\_\_ m

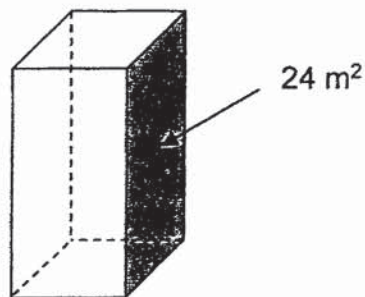
24. ABCD is a trapezium and  $FB \parallel CD$ . Find  $\angle x$ .



Ans: \_\_\_\_\_ °

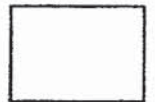


25. The figure shows a cuboid with a square base of area  $16 \text{ m}^2$ . The area of the shaded face is  $24 \text{ m}^2$ . What is the height of the cuboid?

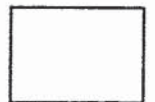
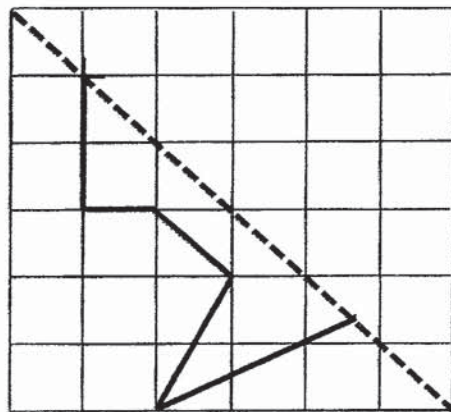


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in this space

Ans: \_\_\_\_\_ m



26. Complete the symmetric figure with the dotted line as the line of symmetry.

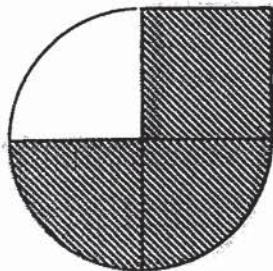


27. At present, Isabella is 9 years old and her mother is 43 years old. In how many years' time will Isabella's mother be 3 times as old as her?

Do not write  
in this space

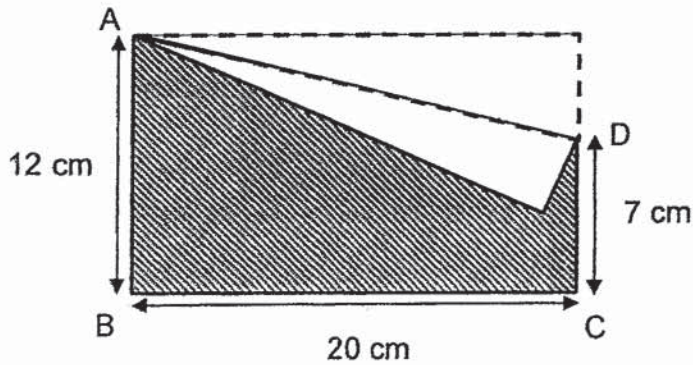
Ans: \_\_\_\_\_

28. The figure below shows three quadrants with radius 4 cm and a square. Find the perimeter of the shaded region. Leave your answer in terms of  $\pi$ .



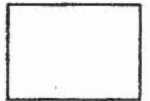
Ans: \_\_\_\_\_ cm

29. A rectangular piece of paper was folded to form the trapezium ABCD below. Find the unshaded area of the trapezium.

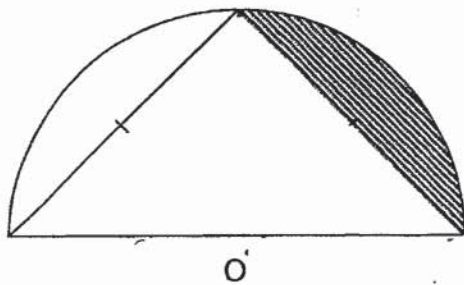


Do not write  
in this space

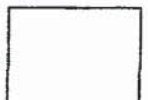
Ans: \_\_\_\_\_  $\text{cm}^2$



30. The figure shows an isosceles triangle within a semicircle. O is the centre of the semicircle and the diameter of the semicircle is 12 cm. Find the area of the shaded part. Leave your answer in terms of  $\pi$ .



Ans: \_\_\_\_\_  $\text{cm}^2$



End of paper  
Have you checked your work?





**ROSYTH SCHOOL**  
**2018 SEMESTRAL ASSESSMENT**  
**MATHEMATICS**  
**PAPER 2**  
**PRIMARY 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Date: 8 May 2018

Parent's Signature: \_\_\_\_\_

Time: 1 h 30 min

---

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. **Show your workings clearly** as marks are awarded for correct working.
4. Write your answers in this booklet.
5. You are allowed to use a calculator.
6. Answer all questions.

Questions	Maximum Mark	Marks Obtained
Q 1 to 5	10	
Q 6 to 17	45	

Section	Maximum Mark	Marks Obtained
Paper 1	45	
Paper 2	55	
Total	100	

\* This booklet consists of 16 pages (including this cover page).



This paper is not to be reproduced in part or whole without the permission of the Principal. Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

Do not write  
in this space

(10 marks)

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

1. Ahmad spent 30% of his money on a pencil and the remainder of his money on a file. He spent \$1.60 more on the file than on the pencil. How much money did he have at first?

Ans: \$ \_\_\_\_\_

2. There were 18 trays of egg tarts. Each tray contained  $b$  egg tarts. 2 trays of egg tarts were sold. The remaining egg tarts were shared equally among 4 children. How many egg tarts did each child receive? Express your answer in terms of  $b$ .

Ans: \_\_\_\_\_



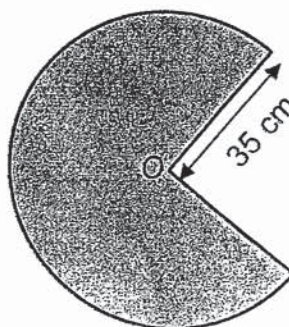
Do not write  
in this space

3. Eleanor scored an average of 80 marks for her 3 revision papers. The full marks for each paper was 100 marks.

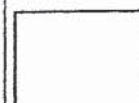
Each statement below is either true, false or not possible to tell. For each statement, put a tick ( ✓ ) in the correct column.

Statement	True	False	Not possible to tell
(i) The score of one test is lower than 80.			
(ii) Eleanor scored 65 and 74 for two of her tests.			

4. The figure shows a three-quarter circle with centre  $O$  and radius 35 cm. Using the calculator value of  $\pi$ , find the area of the figure. Give your answer correct to 2 decimal places.

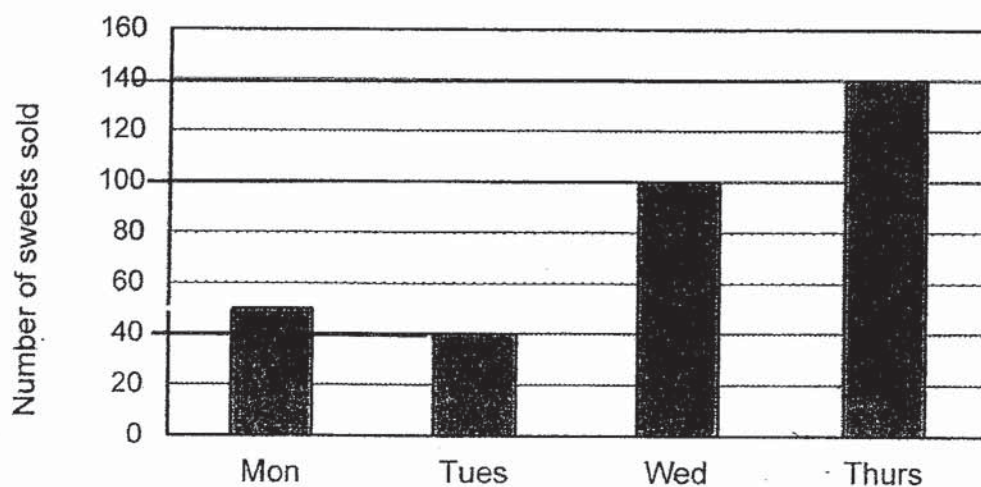


Ans: \_\_\_\_\_ cm<sup>2</sup>



Do not write  
in this space

5. The line graph below shows the number of sweets sold by a shop from Monday to Thursday.



What was the percentage increase in the number of sweets sold by the shop on Thursday as compared to Tuesday?

Ans: \_\_\_\_\_ %

For Questions 6 to 17, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. For questions which require units, give your answers in the units stated.

(45 marks)

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

Do not write  
in this space

6. In a post office, the postal charges for different masses were shown in the table below. On Monday, Mr Tan posted 3 small toys of 25 g each and 1 large toy of 30 g using a regular box. On Tuesday, he posted 5 large toys of 35 g each using an upsized box.

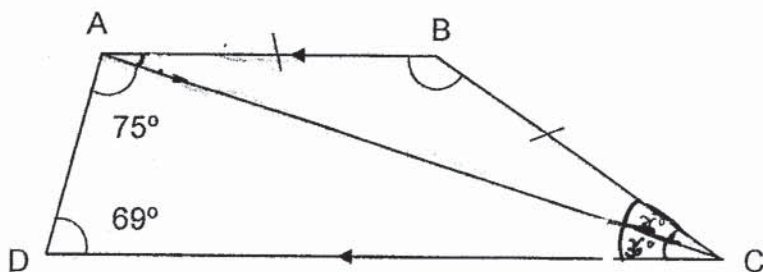
Mass Step Not Over	Regular box	Upsized box
25 g	\$0.30	\$1.80
50 g	\$0.40	
150 g	\$1.20	
250 g	\$2.20	\$3.00
500 g	\$3.50	\$5.00

If he posted both orders together on Wednesday in one upsized box, what is the difference in costs as compared to posting them on separate days?

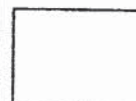
Ans: \_\_\_\_\_ [3m]

7. In the figure, ABCD is a trapezium and ABC is an isosceles triangle.  
 $AB \parallel CD$ ,  $AB = BC$  and AC is a straight line.  
 $\angle CAD = 75^\circ$  and  $\angle ADC = 69^\circ$ . Find  $\angle ABC$ .

Do not write  
in this space

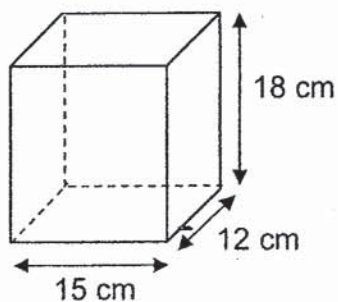


Ans: \_\_\_\_\_ [3m]

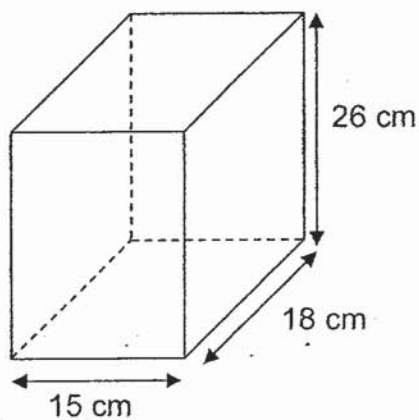


8. Tank A is fully filled with water while Tank B is empty. Jen poured water from Tank A into Tank B until the water level in the 2 tanks is the same. What is the height of the water in tank B in the end?

Do not write  
in this space



Tank A



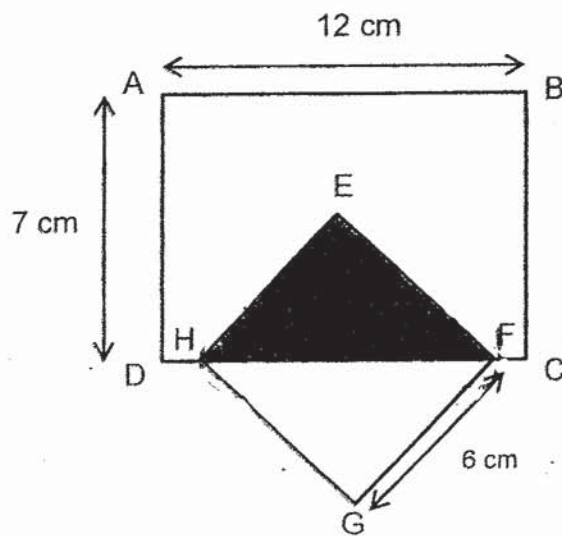
Tank B

Ans: \_\_\_\_\_ [3m]

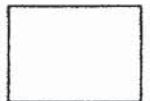


9. ABCD is a rectangle which overlaps the square EFGH as shown. Find the ratio of the shaded region to the unshaded region. Give your answer in the simplest form.

Do not write in this space



Ans: \_\_\_\_\_ [3m]





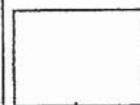
10. Mei Mei bought a total of 119 strawberry jelly and longan jelly for her birthday party. After her friends had eaten  $\frac{5}{8}$  of the strawberry jelly and  $\frac{2}{3}$  of the longan jelly, an equal number of strawberry and longan jelly were left. How many jelly of each type did she buy?

Do not write  
in this space

Ans: Strawberry: \_\_\_\_\_

Longan: \_\_\_\_\_

[4m]

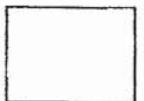




11. John and Leesha had 2160 stamps. John gave 30% of his stamps to Leesha. Leesha then sold 50% of her stamps. They had 1269 stamps left in the end. How many stamps did John have in the end?

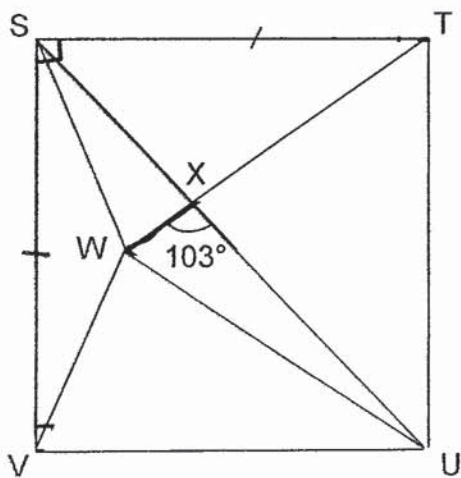
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in this space

Ans : \_\_\_\_\_ [3m]

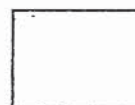


12. In the figure below, STUV is a square.  $ST = TW$ .  $\angle WXU = 103^\circ$ . Find  $\angle XUW$ .

Do not write  
in this space

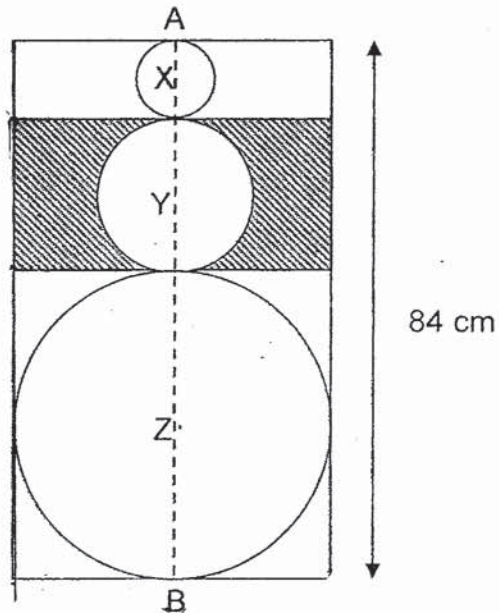


Ans: \_\_\_\_\_ [4m]



13. The figure below is formed by a rectangle and three circles X, Y and Z. The diameter of circle X is half that of circle Y and the diameter of circle Y is half that of circle Z. Line AB is the line of symmetry of the figure. (Take  $\pi = 3.14$ )

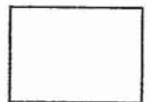
- (a) What is the radius of circle X?  
(b) Find the shaded area.



Do not write  
in this space

Ans (a) \_\_\_\_\_ [1m]

(b) \_\_\_\_\_ [3m]



Do not write  
in this space

14. Molly had some 20-cent and 50-cent coins.

$\frac{7}{8}$  of the coins were 20-cent coins and the rest were 50-cent coins.

After Molly had spent \$78 worth of 50-cent coins and  $\frac{3}{7}$  of the 20-cent coins, she had  $\frac{4}{7}$  of the coins left. Find the number of 50-cent coins Molly had left.

Ans: \_\_\_\_\_ [4m]

15. A cafe had a promotion. For every 3 adults who ordered a set lunch each, the 4<sup>th</sup> adult would get a set lunch free. There was a 70% discount given for each child's set lunch.

The price of 1 set lunch for each child and adult is shown below.

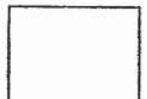


- (a) Boston planned a birthday celebration for 5 adults and 3 children. How much would he have to pay altogether?
- (b) During payment, Boston saw that he was also charged a GST of 7% on the bill. How much GST did he pay? Give your answer correct to 2 decimal places.

Do not write  
in this space

Ans: (a) \_\_\_\_\_ [3m]

(b) \_\_\_\_\_ [2m]



16. Xiao Li wanted to buy a dress. She saw a pink dress on sale at 10% discount and a yellow dress at 20% discount. Both dresses had the same discounted price.

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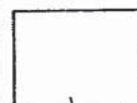
To buy both dresses, Xiao Li needs \$16 more than what she had. She bought the yellow dress and had \$92 left.

(a) What was the discount given for the yellow dress?

(b) How much money did Xiao Li have at first?

Ans: (a) \_\_\_\_\_ [2m]

(b) \_\_\_\_\_ [2m]



17. Mrs Daisy packed and sold chocolates in big boxes of 8 and small boxes of 5.

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in this space

At first, there were twice as many small boxes of chocolates as big boxes. She sold half the number of small boxes and some big boxes. She had 320 chocolates left in all these boxes.

The number of chocolates left in the small boxes was three times the number of chocolates left in the big boxes. Find the total number of big and small boxes Mrs Daisy used to pack all the chocolates.

Ans: \_\_\_\_\_ [5m]







# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : ROSYTH  
 SUBJECT : MATHEMATICS  
 TERM : SA1

## Paper 1

Q1	3	Q4	3	Q7	1	Q10	4	Q13	2
Q2	2	Q5	2	Q8	4	Q11	3	Q14	2
Q3	3	Q6	4	Q9	3	Q12	1	Q15	1

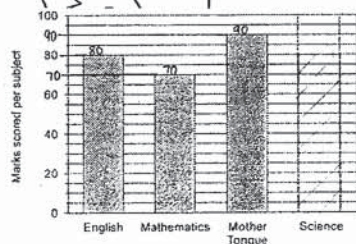
Q16 40

Q17  $240^\circ$

Q18 60%

Q19 36 cm

Q20



Q21 2.03 kg

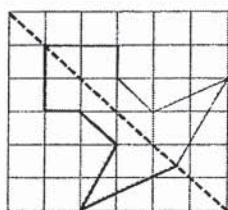
Q22 \$4.50

Q23  $\frac{1}{2}$  **KIASU** ExamPaper

Q24  $38^\circ$

Q25 6 m

Q26



Q27 8

Q28  $(4\pi + 16)$  cm

Q29  $50 \text{ cm}^2$

Q30  $(9\pi - 18) \text{ cm}^2$

### Paper 2

Q1  $100\% - 30\% = 70\%$   
 $70\% - 30\% = 40\%$   
 $40\% \rightarrow 1.60$   
 $100\% \rightarrow \frac{1.60}{40} \times 100 \Rightarrow \$4$

Q2 Left egg tarts  $\rightarrow 18b - 2b = 16b$   
 Each child  $\rightarrow 16b \div 4 \Rightarrow 4b$

Q3 (i) Not possible to tell  
 (ii) False

Q4  $\frac{3}{4} \times 35 \times 35 \times \pi = 2886.3382 \approx \underline{2886.34 \text{ cm}^2}$

Q5 Increase  $\rightarrow 140 - 40 = 100$   
 $\frac{100}{40} \Rightarrow \underline{250\%}$

**Q6 Mon: (one order)**  
 $25\text{g} \times 3 + 30\text{g} = 105\text{g}$   
 Mass step not over 150g (Pay \$1.20)

**Tue: (one order) Upsized**  
 $35\text{g} \times 5 = 175\text{g}$   
 Mass step not over 250g (Pay \$3)

**Total:**  $\$3 + \$1.20 = \$4.20$

**Wed: (both orders)**  
 $105\text{g} + 175\text{g} = 280\text{g}$   
 Mass step not over 500g (Pay \$5)

**Difference**  $\rightarrow \$5 - \$4.20 \Rightarrow \underline{\$0.80}$

**Q7**  $\angle ACD \rightarrow 180^\circ - 75^\circ - 69^\circ = 36^\circ$   
 $\angle ACD \rightarrow \angle BAC \rightarrow 36^\circ$   
 $\angle BAC \rightarrow \angle BCA \rightarrow 36^\circ$   
 $\angle ABC \rightarrow 180^\circ - 36^\circ - 36^\circ \Rightarrow \underline{108^\circ}$

**Q8** Capacity of A  $\rightarrow 15\text{cm} \times 12\text{cm} \times 18\text{cm} = 3240 \text{ cm}^3$   
 Base of A  $\rightarrow 15\text{cm} \times 12\text{cm} = 180 \text{ cm}^2$   
 Base of B  $\rightarrow 15\text{cm} \times 18\text{cm} = 270 \text{ cm}^2$   
 $180 + 270 = 450$   
 Height in B  $\rightarrow 3240 \div 450 \Rightarrow \underline{7.2 \text{ cm}}$

**Q9** Shaded  $\rightarrow \frac{1}{2} \times 6 \times 6 = 18$

Unshaded  $\rightarrow 7 \times 12 = 84$

Shaded : Unshaded

$18 : 84 \Rightarrow \underline{3.14}$

Q10 Strawberry  $\rightarrow 1 - \frac{5}{8} = \frac{3}{8}$

Longan  $\rightarrow 1 - \frac{2}{3} = \frac{1}{3}$

$\frac{3}{8}S \rightarrow \frac{1}{3}L$

$\frac{3}{8}S \rightarrow \frac{3}{9}L$

$8u + 9u = 17u$

$17u = 119$

$8u = \frac{119}{17} \times 8 \Rightarrow \underline{56 \text{ strawberry jelly}}$

$9u = \frac{119}{17} \times 9 \Rightarrow \underline{63 \text{ longan jelly}}$

Q11 Sold  $\rightarrow 2160 - 1269 = 891$

50% L  $\rightarrow 891$

J  $\rightarrow 1269 - 891 \Rightarrow \underline{378 \text{ stamps}}$

Q12  $\angle TUS \rightarrow (180^\circ - 90^\circ) \div 2 = 45^\circ$

$\angle TXU \rightarrow 180^\circ - 103^\circ = 77^\circ$

$\angle XTU \rightarrow 180^\circ - 77^\circ - 45^\circ = 58^\circ$

$\angle TUW \rightarrow (180^\circ - 58^\circ) \div 2 = 61^\circ$

$\angle XUW \rightarrow 61^\circ - 45^\circ \Rightarrow \underline{16^\circ}$

Q13 (a)  $7u = 84$

$1u = 84 \div 7$

D of X  $\rightarrow 12$

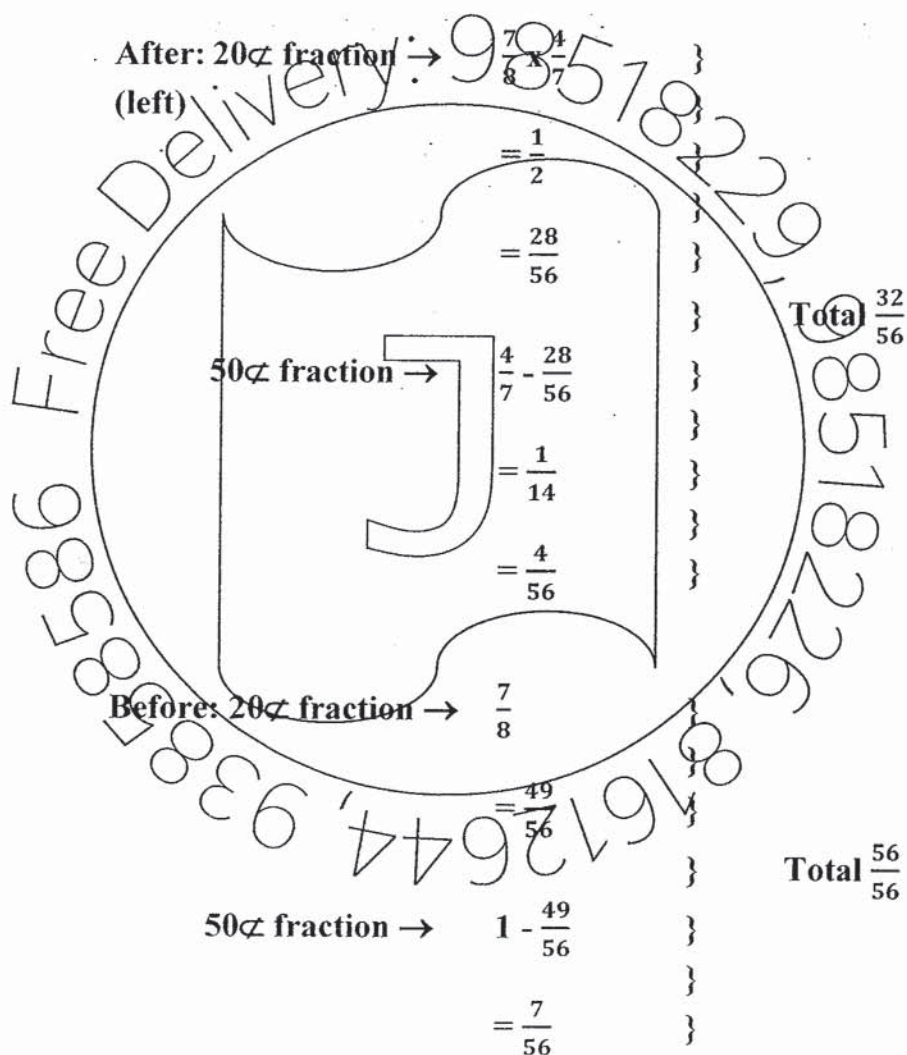
R of X  $\rightarrow 12 \div 2 \Rightarrow \underline{6 \text{ cm}}$



(b)  $2u = 12 \times 2$   
 $B \text{ of } Y \rightarrow 24$   
 $4u = 12 \times 4$   
 $L \text{ of } Y \rightarrow 48$   
 $\text{Area} \rightarrow 48 \times 24 = 1152$   
 $\text{Circle } Y \rightarrow \pi r^2$   
 $3.14 \times 12^2 = 452.16$   
 $\text{Shaded Area} \rightarrow 1152 - 452.16 \Rightarrow \underline{699.84 \text{ cm}^2}$

Q14

$$1 - \frac{3}{7} = \frac{4}{7}$$



**KIASU**  
 ExamPaper

$$\frac{3}{56} \text{ of coins} \rightarrow 78 \div 0.50 = 156$$

$$\frac{4}{56} \text{ of coins} \rightarrow \frac{156}{3} \times 4 \Rightarrow \underline{208}$$

- Q15 (a)  $100\% - 70\% = 30\%$   
 3 children  $\rightarrow (28 \times 30\%) \times 3 = 25.20$   
 $5 \div 4 = 1R1$   
 4 adults  $\rightarrow 48 \times 3 = 144$   
 5 adults & 3 children  $\rightarrow 144 + 48 + 25.20 \Rightarrow \underline{\$217.20}$

(b) GST  $\rightarrow \frac{217.20}{100} \times 7 = 15.204 \approx \underline{\$15.20}$

- Q16 (a) Pink dress  $\rightarrow \$92 + \$16 = \$108$   
 80% yellow  $\rightarrow \$108$   
 20% yellow  $\rightarrow \$108 \div 4 \Rightarrow \underline{\$27}$   
 (b) Money at first  $\rightarrow \$108 + \$92 \Rightarrow \underline{\$200}$

- Q17 No. small box C left  $\rightarrow \frac{320}{4} \times 3 = 240$   
 No. small box C at first  $\rightarrow 240 \times 2 = 480$   
 No. small box  $\rightarrow 480 \div 5 = 96$   
 No. big box  $\rightarrow 96 \div 2 = 48$   
 Total boxes  $\rightarrow 48 + 96 \Rightarrow \underline{144 \text{ boxes}}$

End





TMY / KYS / AT / SL / AS

SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2018

PRIMARY 6

MATHEMATICS  
PAPER 1

BOOKLET A

Name : \_\_\_\_\_ (     )

Class : Primary 6

4 May 2018

		Marks attained	Max Mark	Parent's Signature
Paper 1	Booklet A		20	
	Booklet B		25	
Paper 2			55	
Total Marks		—	100	

15 Questions  
20 Marks

Total Time for Booklets A and B: 1 h

**INSTRUCTIONS TO CANDIDATES**

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You are **not allowed** to use a calculator



### **Booklet A**

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. **(20 marks)**

---

1. Round off 32.448 to the nearest tenth.

- (1) 30
- (2) 32.4
- (3) 32.44
- (4) 32.45

2. What is the missing number in the blank?

$$436\,290 = 400\,000 + \underline{\hspace{2cm}} + 290$$

- (1) 36 000
- (2) 36 020
- (3) 36 090
- (4) 36 200

3. Express 71 080 metres in kilometres.

- (1) 7.108 km
- (2) 71.08 km
- (3) 710.8 km
- (4) 7108 km

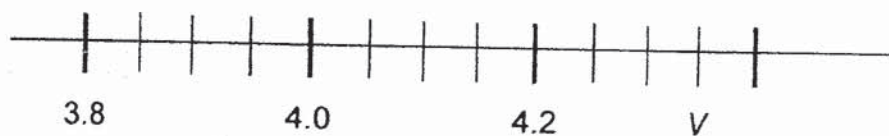
4. What is the value of  $38 \div 100 + 6 \div 10$ ?

- (1) 0.44
- (2) 0.638
- (3) 0.98
- (4) 4.4

5. What is the value of  $30 - (6 + 12) \div 3 \times 2$ ?

- (1) 8
- (2) 2
- (3) 18
- (4) 24

6. In the scale below, what is the value of  $V$ ?



- (1) 4.275
- (2) 4.28
- (3) 4.325
- (4) 4.35

7.  $225 \times 32 = 200 \times 32 + 10 \times 32 + \boxed{?} \times 32$

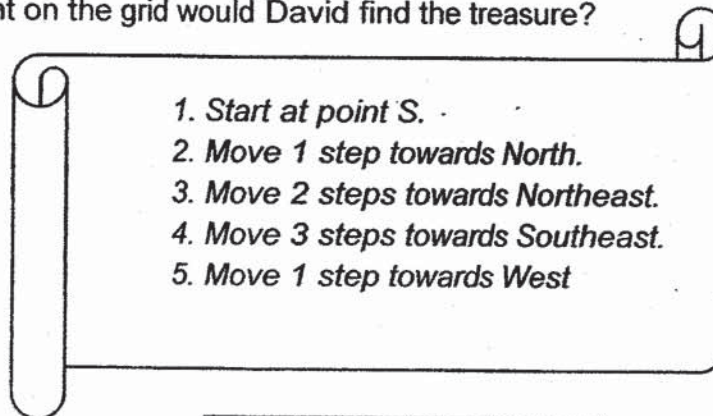
What is the missing number in the box?

- (1) 15
- (2) 22
- (3) 25
- (4) 32

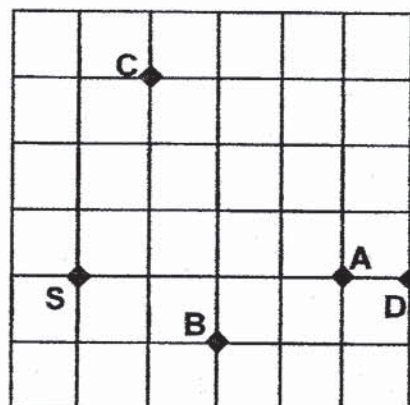
8. Ben received pocket money from his mother each week. This week, his weekly pocket money increased by 20% as his mother had given him \$8 more pocket money. How much pocket money did Ben receive this week?

- (1) \$1.60
- (2) \$32
- (3) \$40
- (4) \$48

9. David took part in a treasure hunt and was given the following instruction sheet. At which point on the grid would David find the treasure?



- (1) A
- (2) B
- (3) C
- (4) D



10. Kumar's watch was faster by 15 minutes.

His watch showed 1.30 p.m. when he left his home to go for a dental appointment.

He travelled for 25 minutes and arrived at the dental clinic just in time.

What was the actual time of his dental appointment?

- (1) 1.40 p.m.
- (2) 1.55 p.m.
- (3) 2.10 p.m.
- (4) 2.25 p.m.

11. Devi had 300 stickers and Nurul had 180 stickers. Devi gave Nurul some of her stickers so that they both have the same number of stickers. What percentage of her stickers did Devi give to Nurul?

- (1)  $33\frac{1}{3}\%$
- (2) 25%
- (3) 20%
- (4) 40%

12. Shirley has  $\frac{5}{6}$  m of ribbon. After cutting it into several shorter pieces, each  $\frac{1}{8}$  m long, she had a remaining piece left. What is the length of the remaining piece?

- (1)  $\frac{1}{12}$  m
- (2)  $\frac{1}{10}$  m
- (3)  $\frac{3}{20}$  m
- (4)  $\frac{2}{3}$  m



13. Celine baked some muffins and packed them into identical boxes. If she packs 6 muffins into each box, she would have 4 muffins left. If she packs 9 muffins into each box, she would need 8 more muffins to fill the last box. How many muffins did Celine bake?

- (1) 12
- (2) 24
- (3) 28
- (4) 36

14. The table below shows the number of families with the respective number of children in their household.

Number of children per household	Number of families
0	4
1	5
2	7
3	5
4	2

What is the total number of families with at least 2 children?

- (1) 7
- (2) 14
- (3) 16
- (4) 19

15. What is the value of  $15 + 17 + 19 + \dots + 41 + 43 + 45$ ?

- (1) 180
- (2) 360
- (3) 480
- (4) 780

**End of Booklet A**

## SINGAPORE CHINESE GIRLS' SCHOOL

## FIRST SEMESTRAL ASSESSMENT 2018

## PRIMARY 6

MATHEMATICS  
PAPER 1

## BOOKLET B

Name : \_\_\_\_\_ (     )

Class : Primary 6 SY / C / G / SE / P

4 May 2018

Paper 1	Mark attained	Max Mark
Booklet B		25

15 Questions  
20 Marks

Total Time for Booklets A and B: 1 h

**INSTRUCTIONS TO CANDIDATES**

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You are **not allowed** to use a calculator

Name: \_\_\_\_\_ ( ) Class: P6 SY / C) G / SE / P

Do not write in  
this column

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)

16. Find the value of  $10.1 - 4.79$

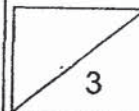
Ans: \_\_\_\_\_

17. Find the value of  $4 \div \frac{6}{7}$ .

Ans: \_\_\_\_\_

18. Express  $\frac{3}{20}$  as a decimal.

Ans: \_\_\_\_\_



19. List the first two common multiples of 3 and 6.

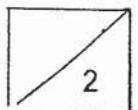
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this column

Ans: \_\_\_\_\_ and \_\_\_\_\_

20. Andy weighed himself using the bathroom scale shown below.  
His body mass is 108 kg when rounded off to the nearest kilogram. What is likely to be the highest possible number that appeared on the bathroom scale?



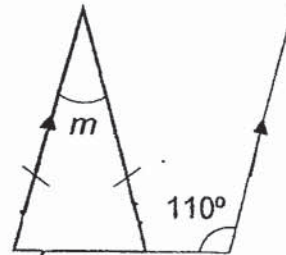
Ans: \_\_\_\_\_ kg



Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

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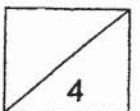
21. In the figure below, find the value of  $\angle m$ .



Ans: \_\_\_\_\_°

22. Find the value of  $13y + 6 - 2y - 5$  when  $y = 3$ .

Ans: \_\_\_\_\_



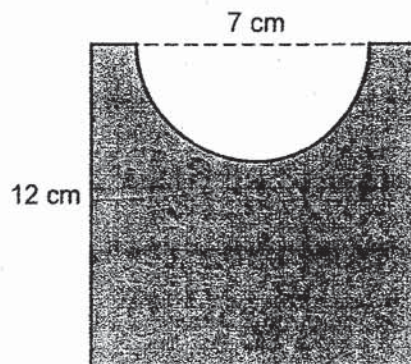
23. Sophia used some coloured beads to make some accessories. For every 5 red beads that she used, she would use 4 blue beads. If she used a total of 108 beads for the accessories, how many blue beads did she use altogether?

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this column

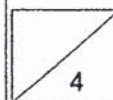
Ans: \_\_\_\_\_

24. In the figure, the shaded part is obtained by removing a semi-circle of diameter 7 cm from a square of side 12 cm.

Find the perimeter of the shaded part. (Take  $\pi = \frac{22}{7}$ )



Ans: \_\_\_\_\_ cm



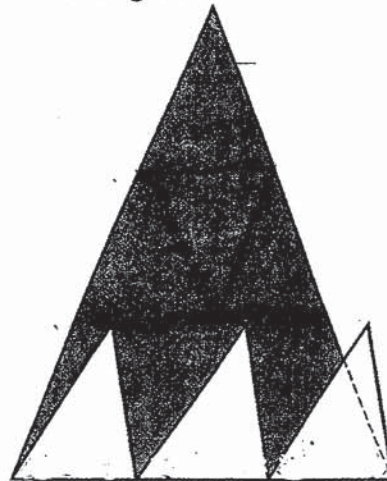


25. Jenny packed 0.5 kg of salt equally into 8 small packets. What is the mass of each packet of salt?

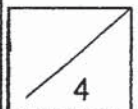
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this column

Ans: \_\_\_\_\_ g

26. The figure below is made up of a big triangle and three identical small triangles. The height of the big triangle is thrice the height of the small triangles. If the area of the big triangle is  $27 \text{ cm}^2$ , what is the area of one small triangle?



Ans: \_\_\_\_\_  $\text{cm}^2$





27. The average of the 4 numbers shown below is 22.

Which number should be removed to obtain an average of 24 for the remaining numbers?

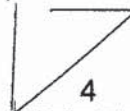
30 , 28 , 16 , 14

Ans: \_\_\_\_\_

28. Linsey bought  $(3 + 4k)$  peaches. She bought  $2k$  fewer peaches than Marie. If Marie gave half of her peaches to her neighbour, how many peaches did her neighbour receive? Express your answer in terms of  $k$ .

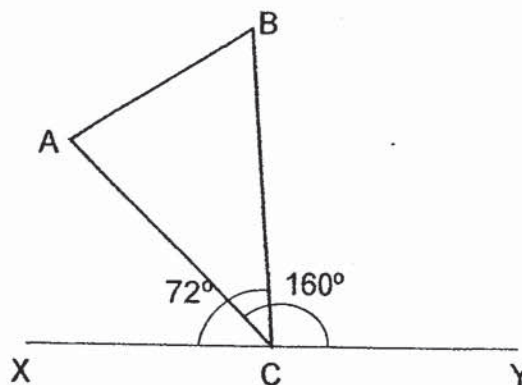
Ans: \_\_\_\_\_

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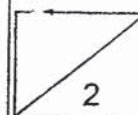


29. In the figure below, not drawn to scale,  $XCY$  is a straight line,  $\angle BCX = 72^\circ$  and  $\angle ACY = 160^\circ$ .  
Find  $\angle ACB$ .

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this column

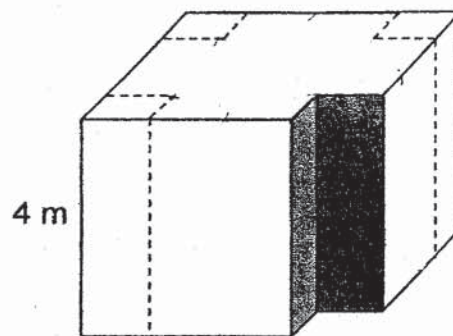


Ans; \_\_\_\_\_ °



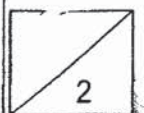
30. The solid below, not drawn to scale, shows a cube with  $\frac{1}{16}$  of it cut off.

What is the volume of the remaining solid when all four identical corners are cut off as shown by the dotted lines?



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Ans: \_\_\_\_\_ m<sup>3</sup>



TMY / KYS / AT / SL / AS

SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2018

PRIMARY 6

MATHEMATICS

PAPER 2

Name : \_\_\_\_\_ (     )

Class : Primary 6 SY / C / G / SE / P

4 May 2018

Paper 2	Mark	Max Mark
		55

Parent's Signature

17 Questions  
55 Marks

Total Time for Paper 2: 1 h 30 min

**INSTRUCTIONS TO CANDIDATES**

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You **are allowed** to use the calculator

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. **(10 marks)**

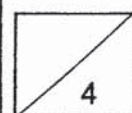
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this column

- 1 Gayle spent  $\frac{3}{5}$  of her salary and Hamid spent  $\frac{1}{4}$  of his salary. If they spent the same amount of money, what is the ratio of Gayle's salary to Hamid's salary?

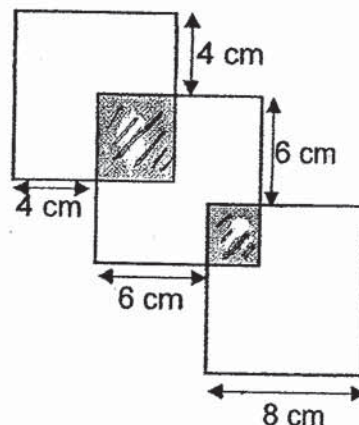
Ans: \_\_\_\_\_

- 2 A group of children participated in a craft-making lesson. A total of 234 cards were distributed equally to the children, with each child receiving 3 cards. There were 6 children in each group. How many groups of children were there?

Ans: \_\_\_\_\_



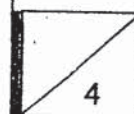
3. James used 3 identical pieces of square papers of sides 8 cm each to form the figure below. The papers overlapped one another, as indicated by the shaded portions. Find the area of the figure below.



Ans: \_\_\_\_\_  $\text{cm}^2$

4. At a party, there were 40 boys and girls. The rest of the guests were adults. 24 guests were not boys and 20 guests were not girls. How many guests were at the party?

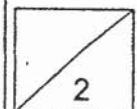
Ans: \_\_\_\_\_



5. Mandy paid \$16 for some key chains. She bought another 6 key chains which cost \$1.20 each. The average cost of all the key chains was \$1.45.  
How many key chains did she buy altogether?

Do not write in  
this column

Ans: \_\_\_\_\_





For questions 6 to 17, show your working clearly in the space below each question and write your answers in the spaces provided. The number of marks awarded is shown in brackets [ ] at the end of each question or part-question. **(45 marks)**

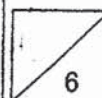
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6. After a discount of 15%, Mr Raju paid \$924.80 for a refrigerator. If he had paid \$848.64 for the refrigerator instead, what would the percentage discount be?

Ans: \_\_\_\_\_ [3]

7. At a game stall, each child needed 3 coupons to redeem a gift, while an adult needed 7 coupons. Given that  $\frac{2}{3}$  of the people who redeemed gifts with their coupons were children and total of 1248 coupons were collected by the game stall, how many adults redeemed their gifts?

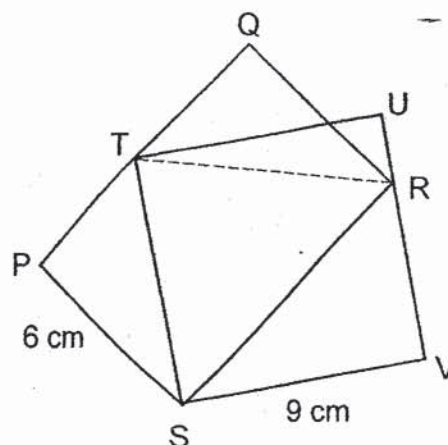
Ans: \_\_\_\_\_ [3]



8. The figure below, not drawn to scale, is made up of a square STUV and a rectangle PQRS.

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this column

- (a) Find the area of triangle RST.  
(b) Find the length of PQ.

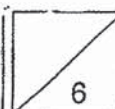


Ans: a) \_\_\_\_\_ [1]

b) \_\_\_\_\_ [2]

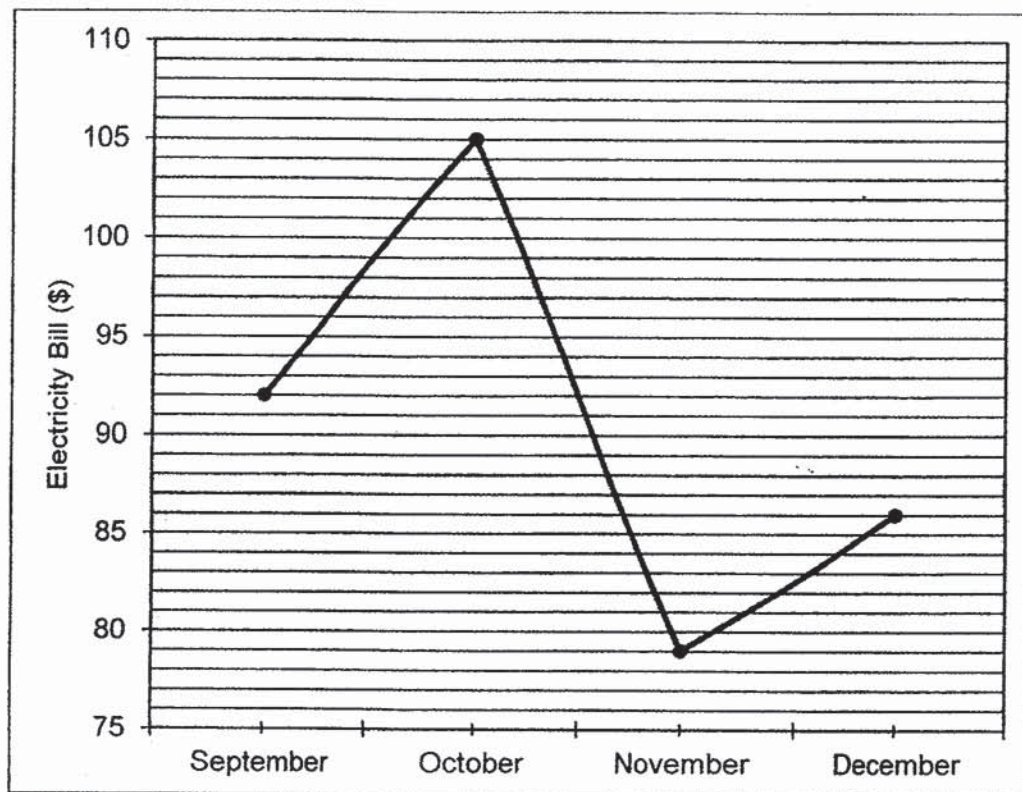
9. The ratio of Ben's age to Zoe's age is 4 : 1. In four years' time, the ratio of Ben's age to Zoe's age will be 14 : 5. How old will Ben be in four years' time?

Ans: \_\_\_\_\_ [3]



10. The graph below shows the amount of money spent on Mrs Teo's monthly electricity bill from September to December 2017.

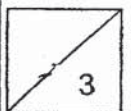
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- (a) How much did Mrs Teo spend on her electricity bill over the four months?
- (b) Mrs Teo used a total of 1783 units of electricity over the four months.  
What is the electricity charges rate for the amount of electricity used?  
(Correct your answer to 2 decimal places).

Ans: a) \_\_\_\_\_ [1]

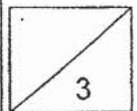
b) \_\_\_\_\_ [2]



11. Jasmine had  $1\frac{2}{3}$  l of milk. She drank  $\frac{7}{9}$  l of it and used  $\frac{1}{3}$  of it to make some dessert. How much milk had she left? (Express your answer in its simplest form)

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this column

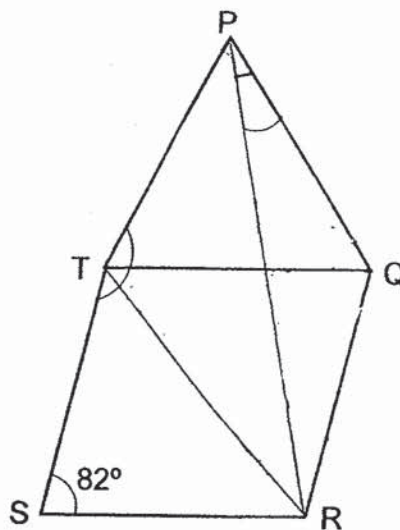
Ans: \_\_\_\_\_ [3]



12. The figure below, not drawn to scale, is made up of an equilateral triangle PQT and a rhombus QRST.  $\angle RST = 82^\circ$ .

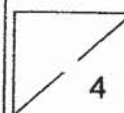
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- (a) Find  $\angle RPQ$   
(b) Find  $\angle STP$



Ans: a) \_\_\_\_\_ [2]

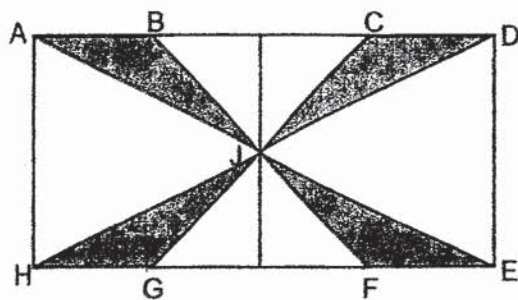
b) \_\_\_\_\_ [2]



13. The figure below is made up of four identical triangles within two identical squares.

B, C, F, G and J are mid-points of each side of the squares.

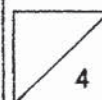
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- (a) What fraction of the figure is shaded?
- (b) If the total area of the shaded parts is  $36 \text{ cm}^2$ , what is the area of a square?

Ans: a) \_\_\_\_\_ [1]

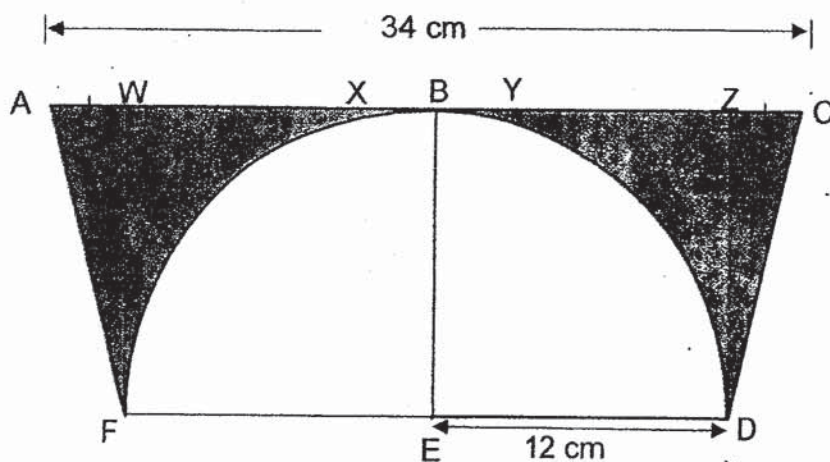
b) \_\_\_\_\_ [3]



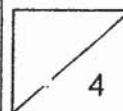


14. The figure below is made up of a semi-circle and a trapezium.  $AW = ZC$ . Find the area of the shaded parts. (Take  $\pi = 3.14$ )

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Ans: \_\_\_\_\_ [4]

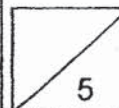




15. Aishah and Su Ling folded paper cranes to raise funds for an event.  $\frac{1}{3}$  of Aishah's paper cranes was 16 more than  $\frac{1}{4}$  of Su Ling's paper cranes. After a few days, Aishah folded more paper cranes and her total increased by  $\frac{1}{3}$ . Su Ling had to throw away  $\frac{1}{2}$  of hers as they were torn. At the end, Aishah had 82 paper cranes more than Su Ling. How many paper cranes were there at the end?



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Ans: \_\_\_\_\_ [5]



16. Mrs Fong had some money to buy some pens and highlighters for a group of children. If she buys an equal number of pens and highlighters such that each child receives 1 pen and 1 highlighter, she would spend \$25.20 more on the highlighters.

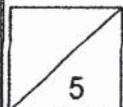
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<p style="text-align: center;"><b>Pens</b> <b>4 for \$3.50</b></p> 	<p style="text-align: center;"><b>Highlighters</b> <b>3 for \$4.20</b></p> 
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- (a) How many children were there altogether?
- (b) After paying for the pens and highlighters, Mrs Fong had \$20.80 left.  
How much did she have at first?

Ans: a) \_\_\_\_\_ [3]

b) \_\_\_\_\_ [2]



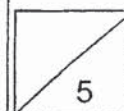
17. An egg seller had a total of 2400 chicken eggs and quail eggs. He accidentally broke some quail eggs and had to throw them away. He decided to add another 150 chicken eggs to his supply. As a result, the number of quail eggs decreased by 5% and the total number of eggs increased by 4.5%. How many chicken eggs did he have at first?

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Ans: \_\_\_\_\_ [5]

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End of Paper





# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : SINGAPORE CHINESE GIRLS'  
 SUBJECT : MATHEMATICS  
 TERM : SA1

## Paper 1

Q1	2	Q4	3	Q7	1	Q10	1	Q13	3
Q2	1	Q5	3	Q8	4	Q11	3	Q14	2
Q3	2	Q6	4	Q9	1	Q12	1	Q15	3

Q16 5.31

Q17  $4\frac{2}{3}$

Q18 0.15

Q19 6 and 12

Q20 108.4 kg

Q21  $40^\circ$

Q22 34

Q23 48 blue beads

Q24 52 cm

Q25  $62\frac{1}{2}$  g

Q26  $3\text{ cm}^2$

Q27 16

Q28  $(\frac{6k+3}{2})$  peaches

Q29  $52^\circ$

Q30  $48 \text{ m}^3$

Paper 2

Q1  $\frac{3}{5}G = \frac{1}{4}H$

$\frac{3}{5}G = \frac{3}{12}H$

5 : 12

Q2 No. of cards in 1 group  $\rightarrow 6 \times 3 = 18$

No. of groups  $\rightarrow \frac{234}{18} \Rightarrow \underline{13}$

Q3 Area of 3 sqs  $\rightarrow 3 \times 8\text{cm} \times 8\text{cm} = 192 \text{ cm}^2$

Area of overlap  $\rightarrow 4\text{cm} \times 4\text{cm} + 2\text{cm} \times 2\text{cm} = 20 \text{ cm}^2$

Area of fig  $\rightarrow 192 \text{ cm}^2 - 20 \text{ cm}^2 \Rightarrow \underline{172 \text{ cm}^2}$

Q4 Adults + girls  $\rightarrow 20$

Adults + boys  $\rightarrow 24$

2 x adults + girls + boys  $\rightarrow 20 + 24 = 44$

2 x adults  $\rightarrow 44 - 40 = 4$

Adults  $\rightarrow \frac{4}{2} = 2$

Total guests  $\rightarrow 40 + 2 \Rightarrow \underline{42}$

Q5 Extra  $\rightarrow 1.20 \times 6 = 7.20$

Total  $\rightarrow 7.20 + 16 = 23.20$

No. of key chains  $\rightarrow 23.20 \div 1.45 \Rightarrow \underline{16 \text{ key chains}}$



Q6  $85\% \rightarrow 924.80$   
 $1\% \rightarrow 924.80 \div 85 = 10.88$   
 $100\% - 10.88 \times 100 = 1088$   
Discount  $\rightarrow 1088 - 848.64 = 239.36$   
 $\% \text{ discount} \rightarrow \frac{239.36}{1088} \times 100\% \Rightarrow \underline{22\%}$

Q7 Children  $\rightarrow 2u \times 3 = 6u$   
Adults  $\rightarrow 1u \times 7 = 7u$   
 $13u \rightarrow 1248$   
 $1u \rightarrow 1248 \div 13 \Rightarrow \underline{96 \text{ adults}}$

Q8 (a)  $\Delta RST \rightarrow \frac{1}{2} \times 9 \times 9 \Rightarrow \underline{40.5 \text{ cm}^2}$

(b) Area of PQRS  $\rightarrow 9 \times 9 = 81$   
 $PQ \rightarrow 81 \div 6 \Rightarrow \underline{13.5 \text{ cm}}$

Q9  $2u \rightarrow 4$   
 $1u \rightarrow 4 \div 2 = 2$   
 $14u \rightarrow 14 \times 2 \Rightarrow \underline{28 \text{ years old}}$

Q10 (a) Total  $\rightarrow \$92 + \$105 + \$79 + \$86 \Rightarrow \underline{\$362}$   
(b) Rate  $\rightarrow \$362 \div 1783 \approx \underline{\$0.20}$

Q11 Dessert  $\rightarrow \frac{1}{3} \times 1\frac{2}{3} \ell = \frac{5}{9} \ell$   
Left  $\rightarrow 1\frac{2}{3} \ell - \frac{7}{9} \ell - \frac{5}{9} \ell \Rightarrow \underline{\frac{1}{3} \ell}$

Q12 (a)  $\angle PQR \rightarrow 60^\circ + 82^\circ = 142^\circ$   
 $\angle RPQ \rightarrow \frac{180^\circ - 142^\circ}{2} = \underline{19^\circ}$

(b)  $\angle STQ \rightarrow 180^\circ - 82^\circ = 98^\circ$   
 $\angle STP \rightarrow 98^\circ + 60^\circ \Rightarrow \underline{158^\circ}$



Q13 (a) Each shaded triangle is  $\frac{1}{4}$  of each small rectangle, so fraction of figure shaded  $\Rightarrow \frac{1}{4}$

(b) Area of square  $\rightarrow 36 \text{ cm}^2 \times 2 \Rightarrow \underline{72 \text{ cm}^2}$

Q14 Rectangle  $\rightarrow 24 \times 12 = 288$   
 Total  $\rightarrow 288 + 5 \times 12 = 348$   
 Shaded area  $\rightarrow 348 - 226.08 \Rightarrow \underline{121.92 \text{ cm}^2}$

Q15 2 units  $\rightarrow 82 - (48 + 16) = 18$   
 $18 \times 2 + 82 \Rightarrow \underline{118 \text{ paper cranes}}$

Q16 (a) 12 pens  $\rightarrow \$3.50 \times 3 = \$10.50$   
 12 highlighters  $\rightarrow \$4.20 \times 4 = \$16.80$   
 Diff in 1 set  $\rightarrow \$16.80 - \$10.50 = \$6.30$   
 No. of sets  $\rightarrow \$25.20 \div \$6.30 = 4$   
 No. of children  $\rightarrow 4 \times 12 \Rightarrow \underline{48}$   
 (b) At first  $\rightarrow \$67.20 + \$42 + \$20.80 \Rightarrow \underline{\$130}$

Q17 100%  $\rightarrow 2400$   
 1%  $\rightarrow 2400 \div 100 = 24$   
 104.5%  $\rightarrow 24 \times 104.5 = 2508$   
 Extra  $\rightarrow (2400 + 150) - 2508 = 42$   
 5% Q  $\rightarrow 42$   
 1%  $\rightarrow 42 \div 5 = 8.40$   
 100% Q  $\rightarrow 8.40 \times 100 = 840$   
 Chicken eggs  $\rightarrow 2400 - 840 \Rightarrow \underline{1560 \text{ chicken eggs}}$





## **2018 PRIMARY 6 SEMESTRAL ASSESSMENT 1**

Name: \_\_\_\_\_ (    ) Date: 11 May 2018

Class: Primary 6 (    )

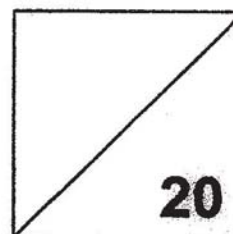
Time: 8.00 a.m. - 9.00 a.m.

Parent's Signature: \_\_\_\_\_

Marks: \_\_\_\_\_ / **100**

**Paper 1 comprises 2 booklets, A and B.**

### **MATHEMATICS PAPER 1 (BOOKLET A)**



#### **INSTRUCTIONS TO CANDIDATES**

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.
6. You are not allowed to use a calculator.



Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4).  
Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

---

(20 marks)

1. Find the value of  $95 - (11 + 4) \div 5 \times 4$ .

- (1) 64
- (2) 83
- (3) 368
- (4) 4

2. Subtract 0.34 from 14 tenths.

- (1) 0.20
- (2) 0.48
- (3) 1.06
- (4) 1.74

3. A is thrice of B. B is five times of C. What is the ratio of C to A?

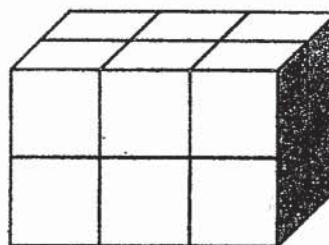
- (1) 1 : 15
- (2) 15 : 1
- (3) 1 : 3
- (4) 3 : 1

4. Su Min was born on 1 July 2007. How old will she be on 1 January 2018?

- (1) 10 years 6 months
- (2) 10 years 7 months
- (3) 11 years 6 months
- (4) 11 years 7 months

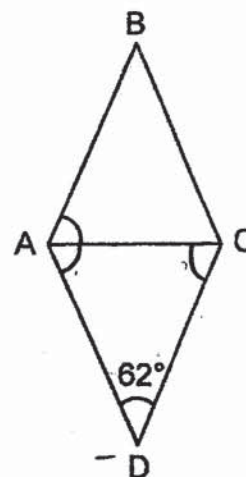
5. Henry made the cuboid shown using 3-cm cubes. What is the volume of the cuboid?

- (1)  $107 \text{ cm}^3$
- (2)  $162 \text{ cm}^3$
- (3)  $243 \text{ cm}^3$
- (4)  $324 \text{ cm}^3$

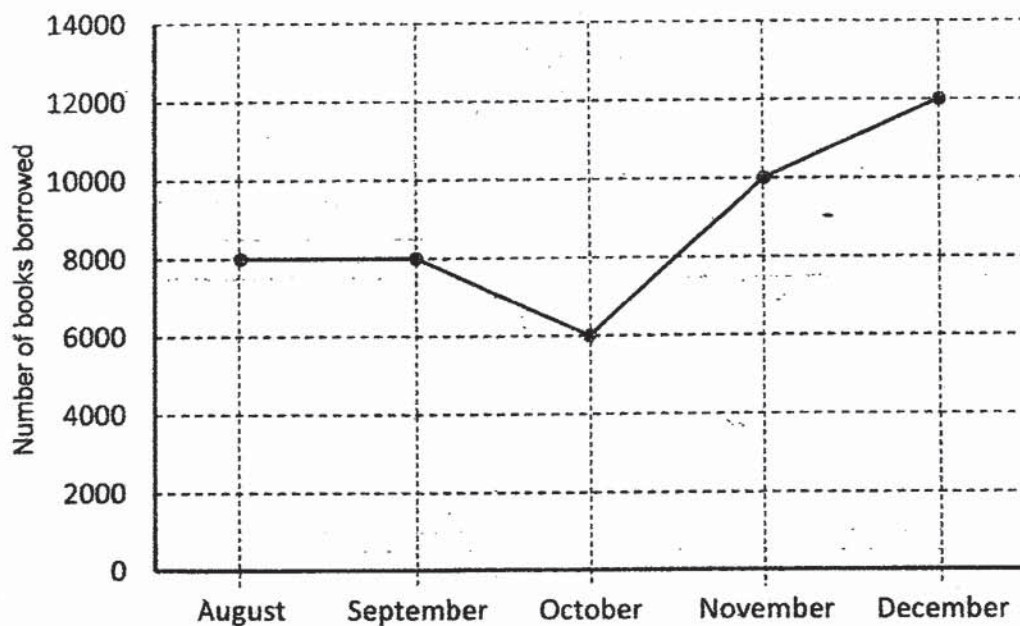


6. ABCD is a rhombus. Find  $\angle BAC$ .

- (1)  $45^\circ$
- (2)  $59^\circ$
- (3)  $62^\circ$
- (4)  $118^\circ$



7. The line graph shows the number of books borrowed from a library from August to December.



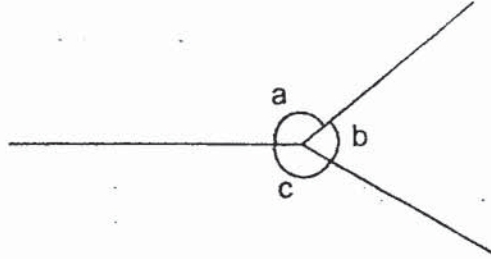
In which 1-month period was there the biggest change in the number of books borrowed?

- (1) Between August and September
  - (2) Between September and October
  - (3) Between October and November
  - (4) Between November and December
8. A farmer planted 9 trees in a row. The trees were planted at the same distance apart. The distance between the first and fourth tree was 12 m. What was the distance between the first tree and the last tree?

- (1) 24 m
- (2) 27 m
- (3) 32 m
- (4) 36 m



9. In the figure below,  $\angle a$  is twice of  $\angle b$ .  $\angle c$  is  $10^\circ$  bigger than  $\angle a$ . Find  $\angle c$ .



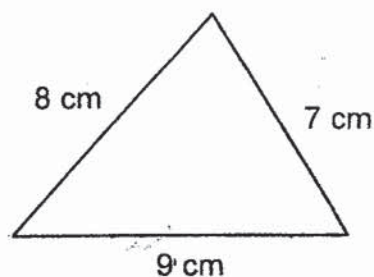
- (1)  $158^\circ$
  - (2)  $150^\circ$
  - (3)  $78^\circ$
  - (4)  $70^\circ$
10. The average mass of Box A, Box B and Box C is 6 kg.  
The mass of Box C is 8 kg. What is the average mass of Box A and Box B?
- (1) 1 kg
  - (2) 2 kg
  - (3) 5 kg
  - (4) 4 kg

11. A shop gave a discount of \$5 for every \$30 spent. Jenny wanted to buy a pillow. The price of the pillow was \$96 before discount. How much did Jenny pay for the pillow?

- (1) \$91
- (2) \$81
- (3) \$80
- (4) \$66

12. The perimeter of the triangle shown is half that of a rectangle. Given that the length of the rectangle is longer than its breadth, how many possible values of the length of the rectangle are there if each length is a whole number?

- (1) 12
- (2) 11
- (3) 10
- (4) 4



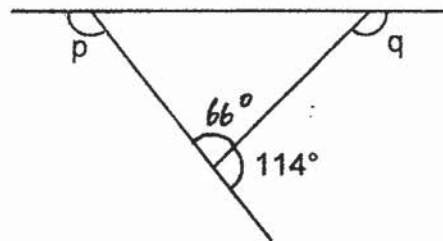
13. Shannon is  $b$  years old. Her sister is 4 years younger than her. What is the sum of their ages in 5 years' time?

- (1)  $(b + 9)$  years
- (2)  $(2b + 14)$  years
- (3)  $(2b + 1)$  years
- (4)  $(2b + 6)$  years

14. Mr Lim only sells apples in bags of 6. Each bag is sold at \$3. Sally has \$7. How many apples can she buy at most?

- (1) 12
- (2) 2
- (3) 14
- (4) 18

15. In the figure below, not drawn to scale, find the sum of  $\angle p + \angle q$ .



- (1)  $66^\circ$
- (2)  $114^\circ$
- (3)  $228^\circ$
- (4)  $246^\circ$

---

**End of Booklet A**  
**Go on to Booklet B**



## **2018 PRIMARY 6 SEMESTRAL ASSESSMENT 1**

Name : \_\_\_\_\_ (    )    Date: 11 May 2018

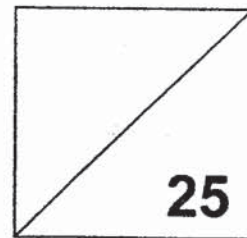
Class : Primary 6 (    )

Time: 8.00 a.m. - 9.00 a.m.

Parent's Signature : \_\_\_\_\_

Paper 1 comprises 2 booklets, A and B.

### **MATHEMATICS PAPER 1 (BOOKLET B)**



#### **INSTRUCTIONS TO CANDIDATE**

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. You are **not** allowed to use a calculator.

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided  
For questions which require units, give your answers in the units stated. (5 marks)

---

16. How many sixths are there in  $9\frac{2}{3}$ ?

Ans: \_\_\_\_\_

---

17. 1 kg 17 g = \_\_\_\_\_ kg.

Ans: \_\_\_\_\_ kg

---

18. Find the value of  $3 + \frac{2}{3} - \frac{1}{4}$

Ans: \_\_\_\_\_

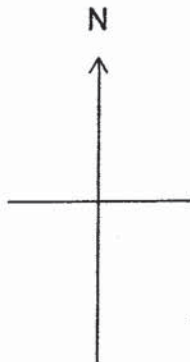
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19. Simplify  $5a - 8 - 2a + 10$

Ans: \_\_\_\_\_

---

20. Muthu is facing the West. He turns anti-clockwise to face North.  
What angle has he turned through?



Ans: \_\_\_\_\_

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

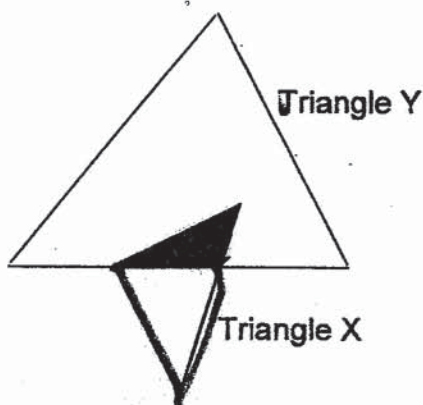
21. The table below shows the parking rates at a car park.

First hour	\$3.00
Every additional half hour or part thereof	\$0.50

Mr Tan parked his car at the car park from 2.20 p.m. to 5.00 p.m. How much did he pay for the parking charges ?

Ans: \_\_\_\_\_

22. The figure is made up of 2 triangles. Triangle X is  $\frac{1}{4}$  the size of Triangle Y.  $\frac{1}{3}$  of Triangle X is shaded. What fraction of the figure is shaded?



Ans: \_\_\_\_\_

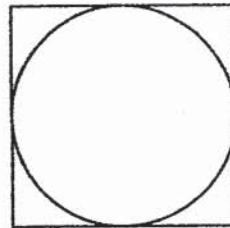


23. The cost of an oven, inclusive of a 7% GST, is \$321.  
What is the cost of the oven before GST?

Ans: \$ \_\_\_\_\_

---

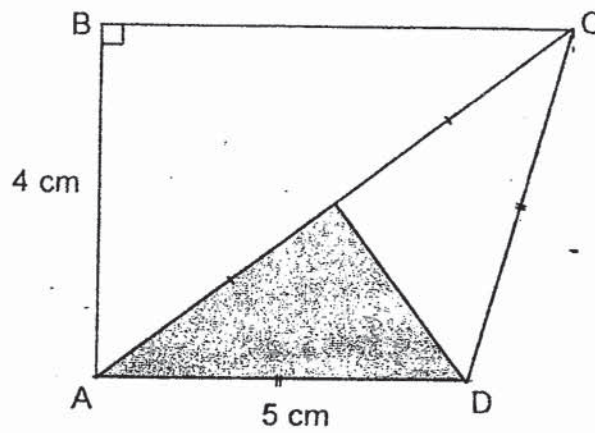
24. The area of the square shown below is  $100 \text{ cm}^2$ .  
Find the circumference of the circle inside it. (Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ cm

---

25. The figure shows a trapezium. Triangle ACD is divided into 2 equal parts. Find the area of the shaded part.



Ans: \_\_\_\_\_  $\text{cm}^2$

26. A wheel makes 26 revolutions per minute.  
How long does it take to make 2340 revolutions ?

Ans: \_\_\_\_ h \_\_\_\_ min

---

27. There are three types of muffins in a box.  
The ratio of the number of vanilla muffins to cheese muffins is 4 : 5.  
The ratio of the number of strawberry muffins to the total number of vanilla and cheese muffins is 5 : 6.  
What fraction of the muffins in the box are vanilla muffins?

Ans: \_\_\_\_\_

---

28. Mdm Lee has  $\frac{3}{5}$  kg of walnuts. She uses  $\frac{1}{6}$  of it to bake some cakes.  
What is the mass of walnuts left?

Ans: \_\_\_\_\_ kg

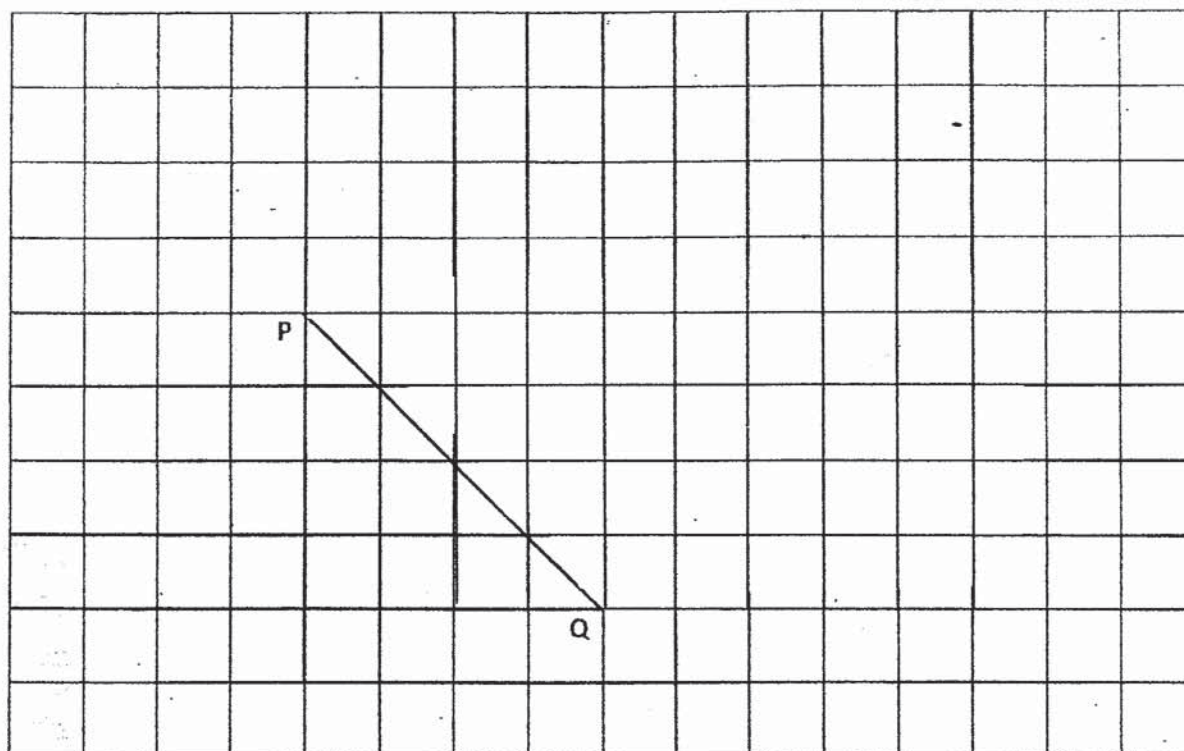
---

29. A group of 5 students booked a tennis court for 2 hours.  
They took turns to play. Every student played an equal amount of time.  
At any time, there were 4 students playing on the court.  
On average, how long did each student play on the court ?

Ans: \_\_\_\_\_ min

---

30. Use the grid given.  
Draw an isosceles triangle, PQR, such that  $\angle PQR = 90^\circ$ .  
Measure the length PR.



Ans: PR = \_\_\_\_\_ cm

---

End of Booklet B  
End of Paper 1

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

1. Mdm Lee bought 120 fruits.

$\frac{1}{3}$  of the fruits were apples,  $\frac{1}{4}$  of the fruits were oranges and the rest were pears.

How many pears did Mdm Lee buy?

Ans: \_\_\_\_\_

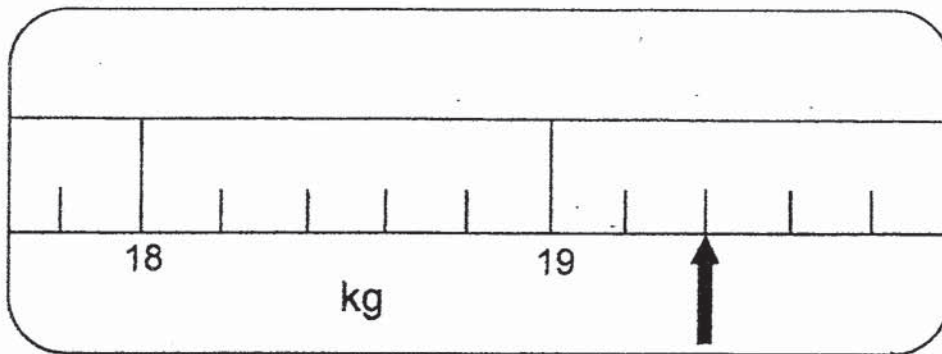
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2. There are 60 cookies in a box. 36 of them are chocolate cookies while the rest are almond cookies. What is the ratio of the number of almond cookies to the number of chocolate cookies in the box?

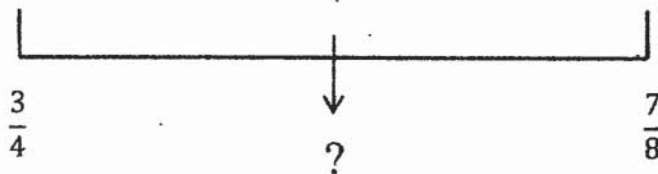
Ans: \_\_\_\_\_

---

3. a) What is the reading shown on the scale below?



- b) Find the value that is exactly halfway between  $\frac{3}{4}$  and  $\frac{7}{8}$ .



Ans: (a) \_\_\_\_\_ kg. \_\_\_\_\_ g

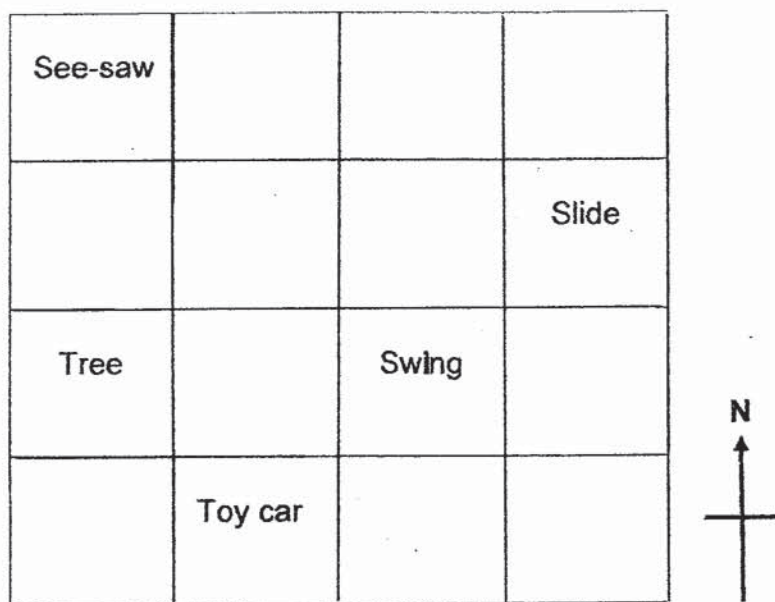
(b) \_\_\_\_\_



4. Mrs Ng had  $4p$  pies. She ate 1 pie and gave  $p$  pies to her friends. Mrs Ng's children then ate half of the remaining pies. How many pies had she left?  
Express your answer in terms of  $p$  in the simplest form.

Ans: \_\_\_\_\_

5. The square grid below shows the plan of a playground.



- (a) In what direction is the tree from the swing?
- (b) The estate management wants to place a bench in the playground.  
The location of the bench is to be south of the slide and east of the toy car.  
Put a cross ( × ) in the square where the bench will be placed.

Ans : (a) \_\_\_\_

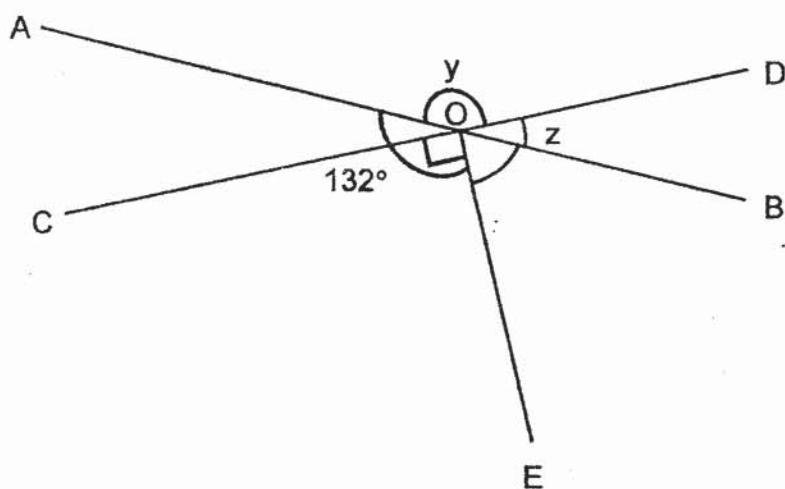
For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(45 marks)

6. In the figure below, AOB and COD are straight lines.

(a) Find  $\angle y$ .

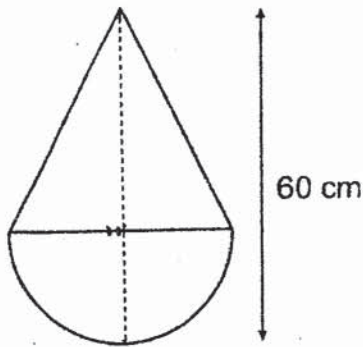
(b) Find  $\angle z$ .



Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [1]

7. The figure below is made up of an isosceles triangle and a semicircle. The height of the triangle is equal to its base. Find the area of the triangle. (Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ [3]

---

8. 1 kg of cherries cost as much as 1.5 kg of peaches.  
Mrs Li spent \$54 for 2.5 kg of cherries and 3 kg of peaches.  
What was the cost of 1 kg of peaches?

Ans: \_\_\_\_\_ [3]

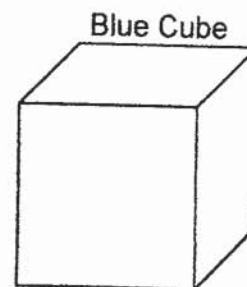
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9. There were 34 more girls than boys in the hall.  
The number of boys was 17% less than the number of girls.  
How many children were there?

Ans: \_\_\_\_\_ [3]

---

10. A blue cube is completely filled with 27 identical red cubes.  
Each side of the red cube is 2 cm. Find the volume of the blue cube.



Ans: \_\_\_\_\_ [3]

---

11. Jerry wanted to buy a pair of shoes. During a sale, he saw a white pair of shoes on sale at 15% discount and a black pair of shoes at 20% discount. Both pairs of shoes were selling at the same price before the discount. To buy the white pair, Jerry would need \$2.50 more than what he had. Jerry bought the black pair of shoes and had \$2 left after that.

- a) How much did the pair of white shoes cost before the discount?  
b) How much money did Jerry have at first?

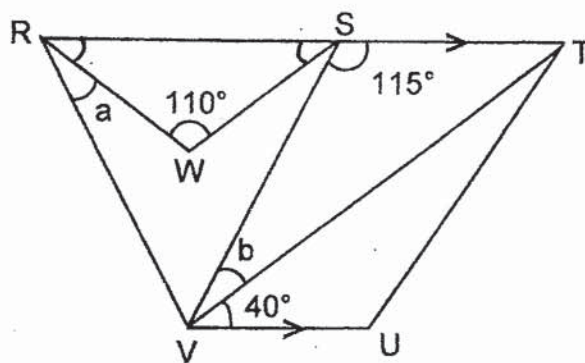
Ans (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

12. In the figure below, not drawn to scale, RST is a straight line.  
 $RW = SW$  and  $RV = SV$ .

a) Find  $\angle a$ .

b) Find  $\angle b$ .

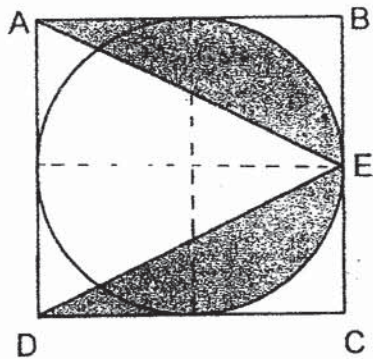


Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



13. The figure below shows a circle in a square ABCD of side 26 cm. E is the midpoint of line BC. Find the area of the shaded region. (Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ [4]

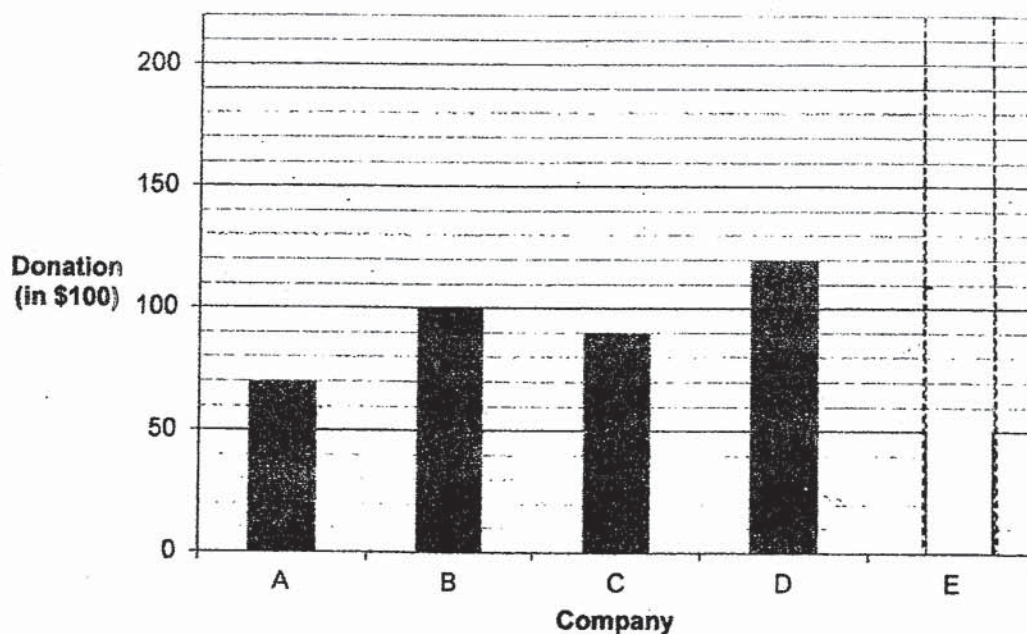
14. Amy, Beth and Cally had a total weight of 115 kg. One year later, Amy's weight doubled. Beth's weight increased by 15 kg and Cally's weight reduced by 5 kg. As a result, Amy became twice as heavy as Beth and Beth became twice as heavy as Cally.

- a) Find Beth's weight at first.
- b) Find their average weight in the end. Round your answer to the nearest whole number.

Ans (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

15. The bar graph shows the donation collected by 5 companies.



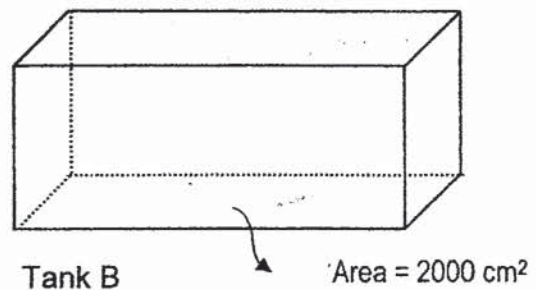
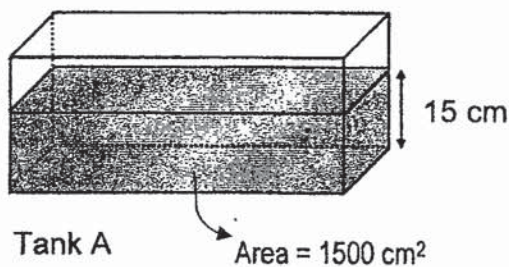
- a) The donation of Company B is twice that of Company E.  
Complete the bar graph. [1]
- b) Which Company collected the most amount of money?
- c) What is the average donation collected by Company A, B, C and D?

Ans: (b) \_\_\_\_\_ [1]

(c) \_\_\_\_\_ [2]

16. Tank A and Tank B are rectangular tanks.  
The base area of Tank A is  $1500 \text{ cm}^2$  and the base area of Tank B is  $2000 \text{ cm}^2$ .  
At first, Tank A has water up to a height of  $15 \text{ cm}$  and Tank B is empty.

- a) When the tap is turned on for 11 minutes, water flows into Tank B at a rate of  $4 \text{ l}$  per minute.
- (i) How much water is there in Tank B ?
  - (ii) What is the height of the water level in Tank B?
- b) Then, some water in Tank B is transferred into Tank A so that the height of the water level in both tanks are the same. What is the increase in the height of the water level for Tank A?



Ans: (a) (i) \_\_\_\_\_ [1]

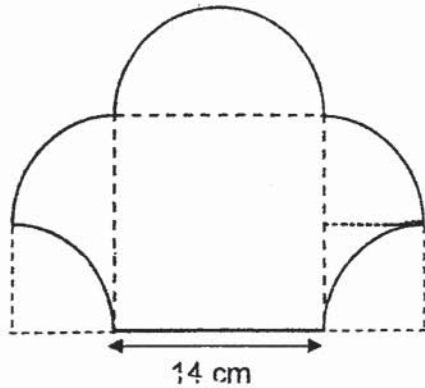
(ii) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

17. Mary designed the following figure with quadrants and semicircles. She wants to bend wire to make the figure. A figure can only be formed using a single piece of wire.

(a) How many centimetres of wire is needed to make 1 such figure ? (Take  $\pi = \frac{22}{7}$ )

(b) The wires are sold in rolls of 2 m long. How many such rolls of wire would Mary need to buy to make 10 figures ?



Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [3]

---

End of Paper 2



# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : TAO NAN  
 SUBJECT : MATHEMATICS  
 TERM : SA1

## Paper 1

Q1	2	Q4	1	Q7	3	Q10	3	Q13	4
Q2	3	Q5	4	Q8	3	Q11	2	Q14	1
Q3	1	Q6	2	Q9	2	Q12	2	Q15	4

Q16 58

Q17 1.017 kg

Q18  $3\frac{5}{12}$

Q19  $3a + 2$

Q20  $270^\circ$

Q21 \$5.00

Q22  $\frac{1}{14}$

Q23 \$300

Q24 31.4 cm

Q25  $5 \text{ cm}^2$

Q26 1 h 30 min

Q27

$\frac{8}{33}$

KIASU  
ExamPaper

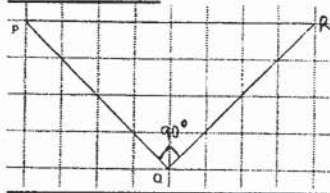


Q28 0.5 kg



Q29 96 min

Q30  $PR = 8 \text{ cm}$



## Paper 2

Q1  $120 \div 3 = 40$   
 $120 \div 4 = 30$   
 $30 + 40 = 70$   
 $120 - 70 = 50$  pears

Q2  $60 - 36 = 24$   
 $24 \div 36 = \frac{2}{3}$

Q3 (a) 19 kg 400 g  
 (b)  $\frac{13}{16}$

Q4  $4p - p - 1 = 3p - 1$   
 $\Rightarrow \frac{3p - 1}{2}$

Q5 (a) West

(b)

See-saw			
			Slide
Tree		Swing	
	Toy car		X

Q6 (a)  $\angle EOB = 180^\circ - 132^\circ \rightarrow 48^\circ$   
 $\angle y = 90^\circ + 48^\circ \rightarrow 138^\circ$   
 $\angle y \Rightarrow \underline{138^\circ}$

(b)  $\angle z = 180^\circ - 138^\circ \rightarrow 42^\circ$   
 $\angle z \Rightarrow \underline{42^\circ}$

Q7 (a)  $60 \text{ cm} \div 3 = 20 \text{ cm}$   
 $20 \text{ cm} \times 2 = 40 \text{ cm}$   
 $40 \text{ cm} \times 40 \text{ cm} \times \frac{1}{2} \Rightarrow \underline{800 \text{ cm}^2}$

Q8 1kg of cherries = 1.5kg of peaches  
 $2.5\text{kg of cherries} + 3\text{kg of peaches} = \$54$   
 $2.5\text{kg of cherries} + 2\text{kg of cherries} = \$54$   
 $4.5\text{kg of cherries} = \$54$   
 $0.5\text{kg of cherries} = \$6$   
 $2.5\text{kg of cherries} = \$30$   
 $3\text{kg of peaches} = \$24$   
 $1\text{kg of peaches} \Rightarrow \underline{\$8}$

Q9  $17\% = 17 \text{ units}$   
 $17 \text{ units} = 34$   
 $1 \text{ unit} = 2$   
 $183 \text{ units} \Rightarrow \underline{366 \text{ children}}$

Q10  $2 \times 2 \times 2 = 8$   
 $27 \times 8 \Rightarrow \underline{216 \text{ cm}^3}$

Q11 (a)  $20\% - 15\% = 5\%$   
 $5\% = 5 \text{ units}$   
 $5 \text{ units} = \$2.50 + \$2$   
 $5 \text{ units} = \$4.50$   
 $1 \text{ unit} = \$0.90$   
 $100 \text{ units} \Rightarrow \underline{\$90}$

(b)  $\$90 \times \frac{80}{100} = \$72$

$\$72 + \$2 \Rightarrow \underline{\$74}$

- Q12 (a)  $\angle VRS \rightarrow (180^\circ - 110^\circ) \div 2 = 35^\circ$   
 $\angle WSV \rightarrow \angle a = 180^\circ - 35^\circ - 115^\circ \Rightarrow \underline{30^\circ}$
- (b)  $\angle b \rightarrow 180^\circ - 115^\circ - 40^\circ \Rightarrow \underline{25^\circ}$

- Q13  $26 \div 2 = 13$   
 $3.14 \times 13 \times 13 = 530.66$   
 $26 \times 26 = 676$   
 $676 - 530.66 = 145.34$   
 $145.34 \div 4 = 36.335$

$$13 \times 26 \times \frac{1}{2} = 169$$

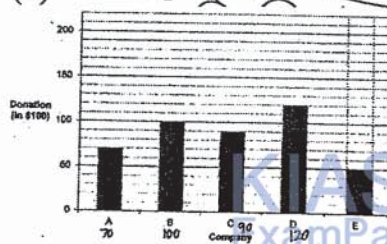
$$169 - 36.335 = 132.665$$

$$132.665 \times 2 \Rightarrow \underline{265.33 \text{ cm}^2}$$

- Q14 (a)  $115 - 5 + 15 = 125$   
 $125 \div 5 = 25$   
 $25 \times 2 = 50$   
 $50 - 15 \Rightarrow \underline{35 \text{ kg}}$

- (b)  $25 \times 7 = 175$   
 $175 \div 3 \approx \underline{58 \text{ kg}}$

- Q15 (a)



- (b) **Company D**

- (c)  $7000 + 10000 + 9000 + 12000 = 38000$   
 $38000 \div 4 \Rightarrow \underline{\$9500}$

Q16 (a) (i)  $11 \times 4 \ell \Rightarrow \underline{44 \ell}$

(ii)  $44 \ell = 44000 \text{ ml}$

$44000 \text{ ml} = 44000 \text{ cm}^3$

$44000 \text{ cm}^3 \div 2000 \text{ cm} \Rightarrow \underline{22 \text{ cm}}$

(b)  $44000 + 22500 = 66500$

$1500 + 2000 = 3500$

$\frac{66500}{3500} = 19$

$19 - 15 \Rightarrow \underline{4 \text{ cm}}$

Q17 (a)  $\frac{1}{4} \times \frac{22}{7} \times 14 = 11$

$11 \times 6 = 66$

$66 + 14 \Rightarrow \underline{80 \text{ cm}}$

(b)  $200 \div 80 = 2 \text{ R } 40$

$10 \div 2 \Rightarrow \underline{5 \text{ rolls}}$

End







*Anglo-Chinese School (Junior)*  
*Anglo-Chinese School (Primary)*

**2018 PRELIMINARY EXAMINATION  
MATHEMATICS  
PAPER 1 (BOOKLET A)  
PRIMARY SIX**

Name: \_\_\_\_\_ (     ) Class: Primary 6 \_\_\_\_

Date: 24 August 2018

Duration of Booklets A & B: 1 hour

**INSTRUCTIONS TO CANDIDATES**

1. This question paper consists of 9 printed pages, including the cover page.
2. Do not turn this page until you are told to do so.
3. Follow all instructions carefully.
4. Shade your answers on the Optical Answer Sheet (OAS) provided.
5. You are not allowed to use a calculator.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4) and shade your answer (1, 2, 3 or 4) on the Optical Answer Sheet (OAS). (20 marks)

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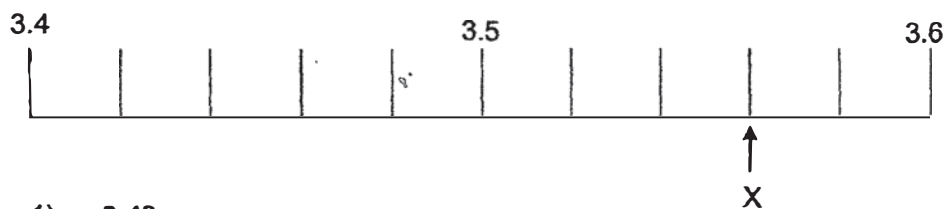
1. Find the value of  $14 \times 5 - 4 \times 4 + 20 - 16$ .

- 1) 18
- 2) 50
- 3) 58
- 4) 60

2. Express 2080 cm in m.

- 1) 2.8 m
- 2) 2.08 m
- 3) 20.8 m
- 4) 20.08 m

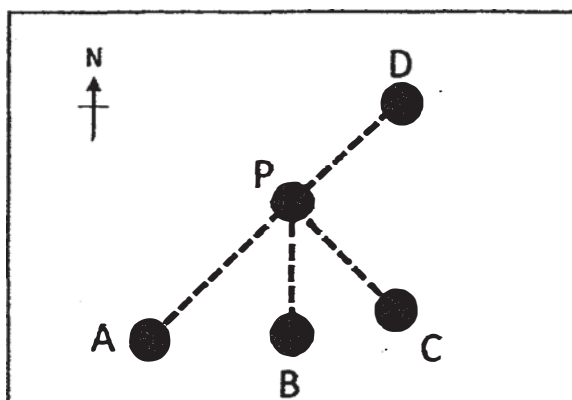
3. Part of a scale is shown below. What is the value of the reading at X?



- 1) 3.48
- 2) 3.53
- 3) 3.56
- 4) 3.62

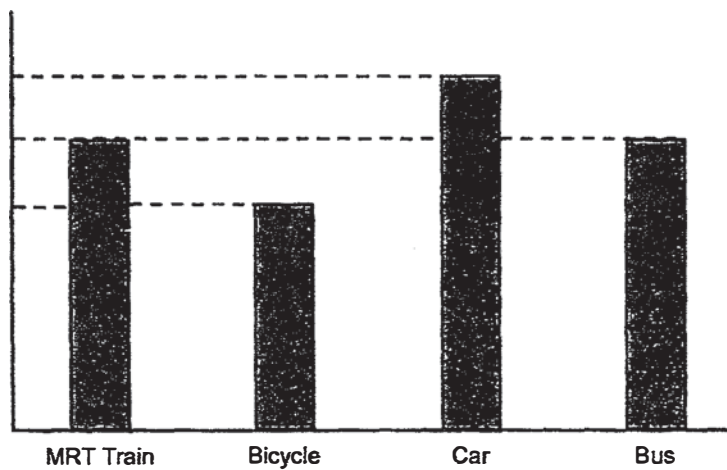


4. The figure below shows the map of 5 places, labelled A, B, C, D and P. Which place is south-west of P?



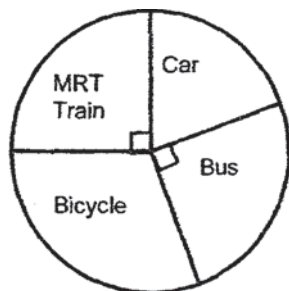
- 1) A
  - 2) B
  - 3) C
  - 4) D
5. 4 bags of sugar cost \$13.60. How much does 1 bag of sugar cost?
- 1) \$3.20
  - 2) \$3.40
  - 3) \$6.40
  - 4) \$6.80

6. The bar graph shows the number of students who took different types of transport to school.

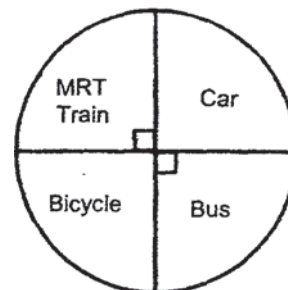


Which pie chart best represents the information in the bar graph?

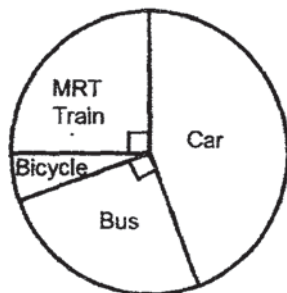
(1)



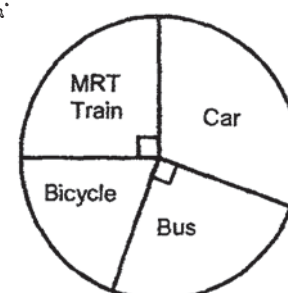
(2)



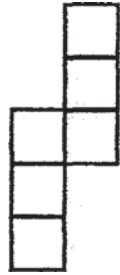
(3)



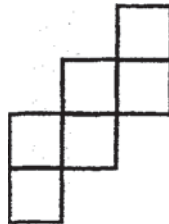
(4)



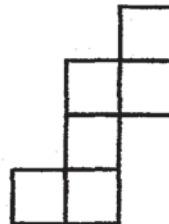
7. Which of the following 4 figures below is **NOT** the net of a cube?



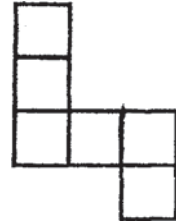
(1)



(2)



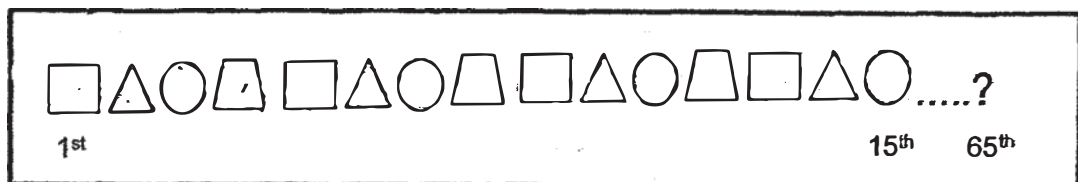
(3)



(4)

8. Tina used stickers of four different shapes to make a pattern. The first 15 stickers are shown below.

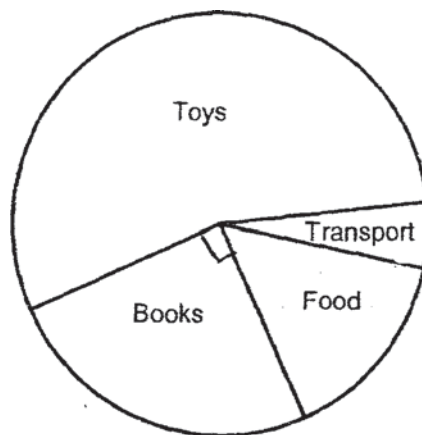
What is the shape in the 65<sup>th</sup> position?



9. The length of each side of a square is an even number. Which one of the following can be the perimeter of the square?

- 1) 15 cm
- 2) 24 cm
- 3) 36 cm
- 4) 44 cm

10. The pie chart shows how Mathew spent his pocket money last week.  $\frac{1}{4}$  of his money was spent on books and  $\frac{1}{5}$  of his money was spent on food and transport. He spent 3 times as much on food as transport. What was the ratio of the amount of money Matthew spent on food to the amount he spent on toys?



- 1) 1 : 5
- 2) 3 : 4
- 3) 3 : 11
- 4) 5 : 11

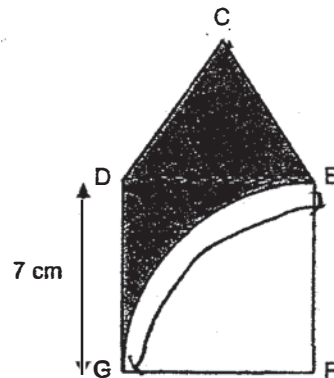
11.  $\frac{1}{4}$  of a pole is painted white and  $\frac{1}{2}$  of the remainder is painted red.

What fraction of the pole is **not** painted?

- 1)  $\frac{1}{4}$
- 2)  $\frac{3}{8}$
- 3)  $\frac{1}{2}$
- 4)  $\frac{5}{8}$

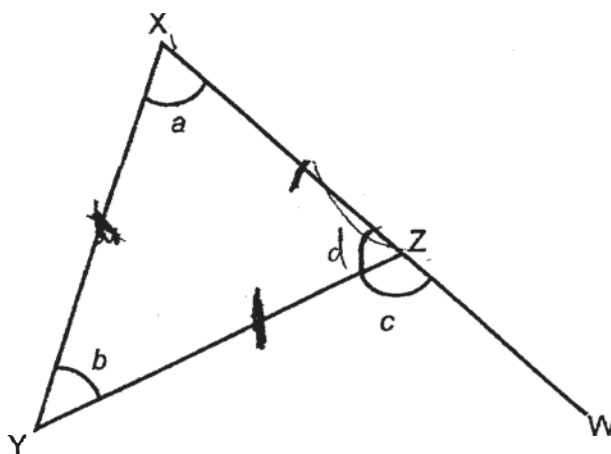
12. The figure below is made up of an equilateral triangle CDE and a square DEFG of length 7 cm with a quadrant in it. Find the perimeter of the shaded region. Take  $\pi = \frac{22}{7}$ .

- 1) 11 cm
- 2) 32 cm
- 3) 39 cm
- 4) 65 cm



13. At 09 00, a lorry left Town X for Town Y travelling at a speed of 70 km/h. At the same time, a car left Town Y for Town X travelling at a speed of 90 km/h. The distance between Town X and Town Y is 480 km. At what time did the lorry and car pass each other?
- 1) 12 00
  - 2) 13 00
  - 3) 14 00
  - 4) 15 00
14. A ribbon was first cut into 2 pieces in the ratio 1 : 3. The longer piece was then cut into two pieces in the ratio 3 : 2. The shortest piece was 20 cm shorter than the longest piece. What was the length of the ribbon before it was cut?
- 1) 40 cm
  - 2) 80 cm
  - 3) 90 cm
  - 4) 100 cm

15. In the figure below, not drawn to scale,  $XYZ$  is an isosceles triangle where  $XZ = ZY$ .  $XZW$  is a straight line. Three angles are labelled as  $a$ ,  $b$  and  $c$ .



Which of the following statements is true?

- (1)  $\angle a + \angle b = 180^\circ - \angle c$
- (2)  $\angle b = \angle c$
- (3)  $\angle b = 180^\circ - \angle a$
- (4)  $\angle c = 2\angle a$



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated.

(5 marks)

---

16.  $\frac{5}{8}$  of the children in a field are girls. There are 45 boys. How many girls are there?

Ans : \_\_\_\_\_

17. The total volume of 8 identical cans of soda is 2.56 l. What is the total volume of 2 cans of soda in millilitres?

Ans : \_\_\_\_\_ ml

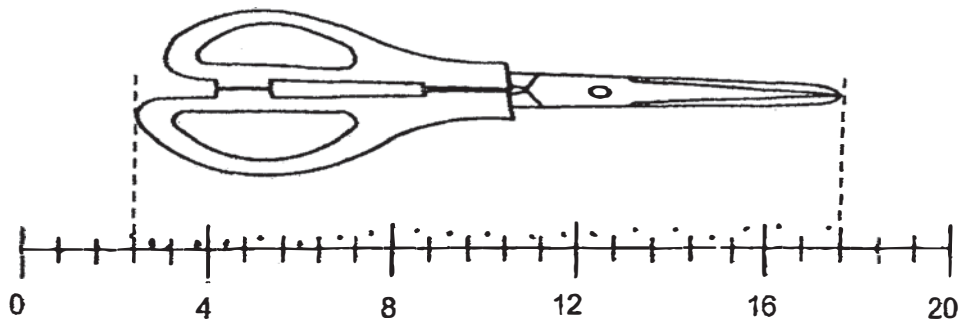
Combined ACS Prelim 2018

2

Sub-Total :

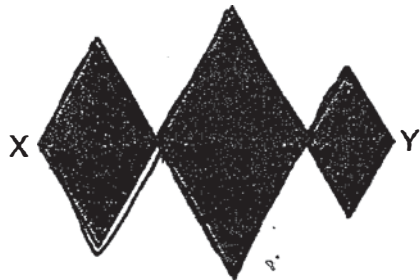
--

18. A pair of scissors is placed next to the scale. What is the length of the pair of scissors?



Ans : \_\_\_\_\_ cm

19. The shaded figure is made up of 6 equilateral triangles. The length of straight line  $XY$  is 21 cm. Find the perimeter of the shaded figure.



Ans : \_\_\_\_\_ cm

20. Jane and Susan had some beads. After Jane gave 23 beads to Susan, she had 30 more than Susan. How many more beads did Jane have than Susan at first?

Ans : \_\_\_\_\_

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

---

21. A is  $2\frac{1}{3}$  times as large as B. Express B as a fraction of A.

Ans : \_\_\_\_\_

22. Participants of a competition must obtain at least a certain score to qualify for a prize. There were 120 participants. The table shows the number of participants for each score.

Score	Number of Participants
0	11
1	28
2	33
3	12
4	21
5 or more	15

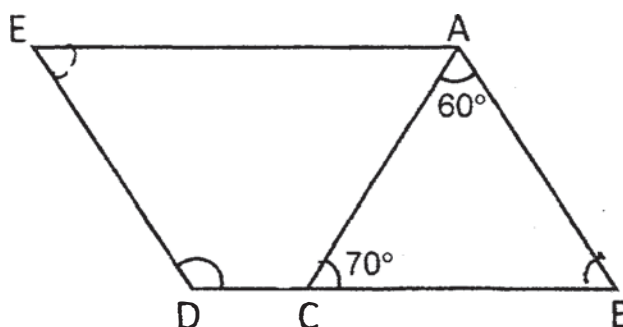
40% of the participants won a prize. From the table, what was the lowest score for a participant to qualify for a prize?

Ans : \_\_\_\_\_

23. The number of pears Mr Tay has is less than 50. If he sells his pears in packets of 4 or 7, he will have 3 pears left. How many pears does he have?

Ans : \_\_\_\_\_

24. In the figure below, not drawn to scale, ABDE is a parallelogram.  
 $\angle ACB = 70^\circ$  and  $\angle BAC = 60^\circ$ . Find  $\angle EDC$ .

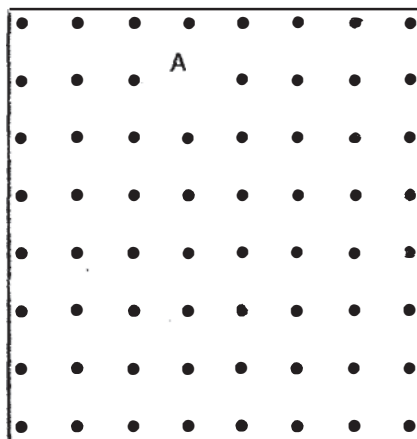


Ans : \_\_\_\_\_<sup>o</sup>

25. Catherine and Daphne shared some money. Catherine had  $\$4d$  and Daphne had  $\$(2d + 80)$ . Both of them had  $\$560$  altogether. Find the value of  $d$ .

Ans : \$ \_\_\_\_\_

26. The grid below shows a straight line. Draw another straight line that is parallel to it and passes through the white dot marked as A. This line must start on a black dot and end on another black dot.



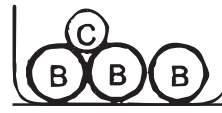
27. 3 objects A, B and C of different masses were placed in identical containers and weighed. Their mass was recorded. What was the mass of A? Give your answer in grams.



580 g



0.76 kg



1 kg 50g

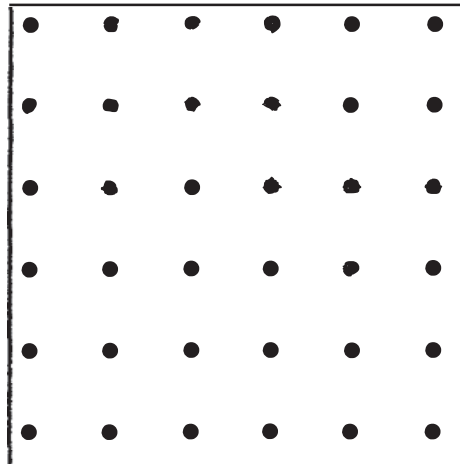
Ans : \_\_\_\_\_ g

28. The average mass of a group of 6 adults is 65 kg and the average mass of another group of 4 adults is 80 kg. What is the average mass of all the adults in the 2 groups?

Ans : \_\_\_\_\_ kg



29. The figure below shows an incomplete net of a cuboid. Within the grid, draw a rectangle to complete the net.



30. During a sale, the price of a bag was \$32 after a 20% discount. Henry was given a further discount of \$4. What was the total percentage discount given?

Ans : \_\_\_\_\_ %



Anglo-Chinese School (Junior)  
Anglo-Chinese School (Primary)

2018 PRELIMINARY EXAMINATION  
MATHEMATICS  
PAPER 2  
PRIMARY SIX

Name: \_\_\_\_\_ ( ) Class: Primary 6 \_\_\_\_

Date: 24 August 2018

Duration of Paper 2: 1 hour 30 minutes

\_\_\_\_\_  
Parent's/Guardian's signature

**INSTRUCTIONS TO CANDIDATES**

1. This question paper consists of 16 printed pages, including the cover page.
2. Do not turn this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. You are allowed to use a calculator.

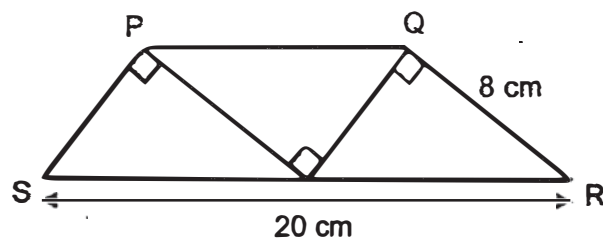
Paper 2 Section A. Short Answers	10	
Paper 2 Section B. Problem Sums	45	
Total Marks	55	

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

- At a funfair, candies are only sold in packets of 9. Each packet is sold at \$5. One candy is given free for every two packets bought. What is the maximum number of candies Peter will receive when he spent \$25?

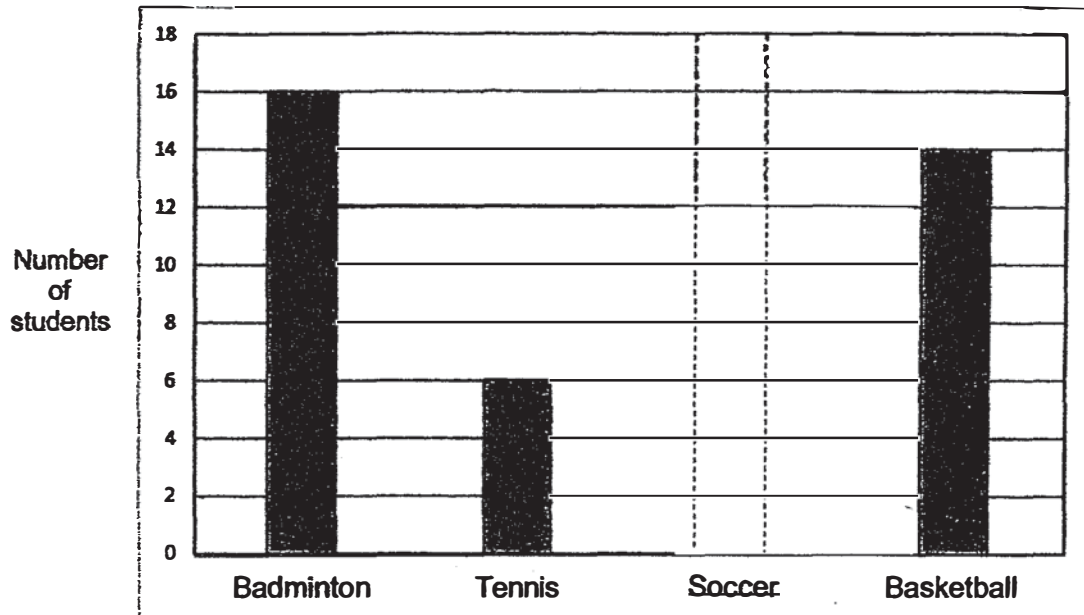
Ans : \_\_\_\_\_

- Mysha cut out three identical right-angled triangles. She joined them to form a figure PQRS as shown below.  $SR = 20$  cm and  $QR = 8$  cm. The perimeter of the figure PQRS is 44 cm. Find the area of the figure PQRS.

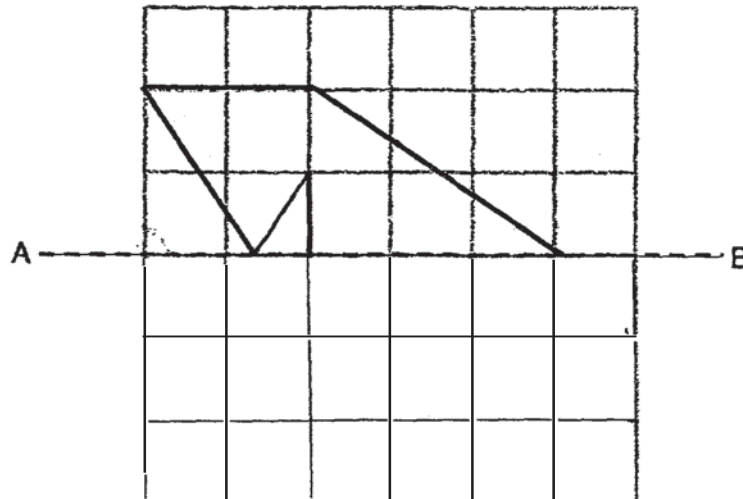


Ans : \_\_\_\_\_ cm<sup>2</sup>

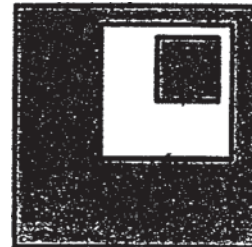
3. The bar graph shows the number of students playing in the various sports during the school's games day.  $\frac{1}{4}$  of the students play soccer. Draw the bar that shows the number of students who play soccer.



4. In the figure below, draw 3 more straight lines to form a symmetric figure with AB as the line of symmetry.



5. Mrs Lee drew 3 squares to form a figure. The areas of the squares were in the ratio 1 : 4 : 13. She then shaded some parts of the figure as shown below. What is the ratio of the shaded parts to the unshaded part of the figure?



Ans : \_\_\_\_\_

For questions 6 to 17, show your working clearly question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

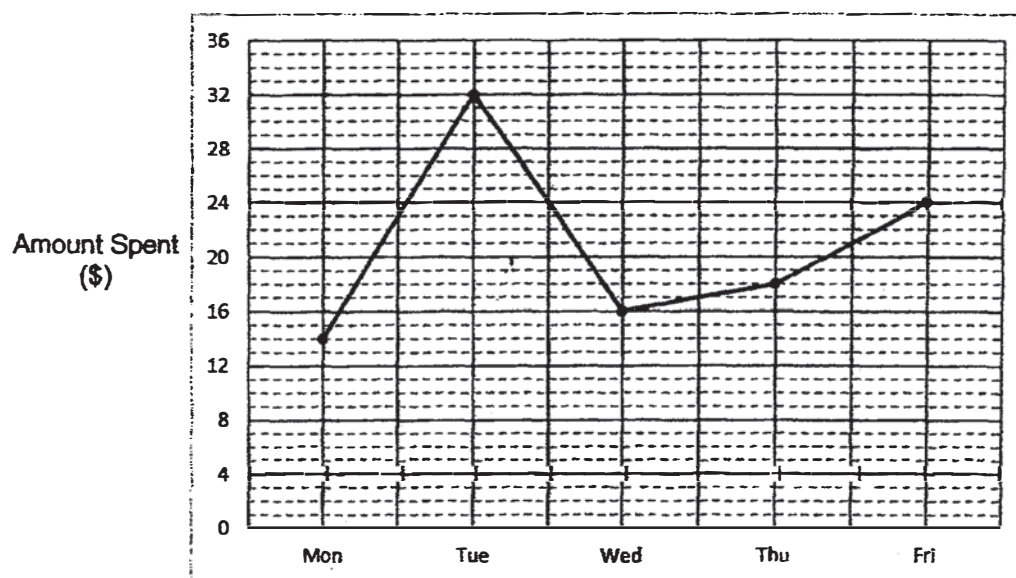
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6. Tom had  $\frac{4}{5}$  as many stamps as Michael. After Michael gave away  $\frac{3}{7}$  of his stamps, Tom had 40 more stamps than Michael. How many stamps did Tom have?

Ans : \_\_\_\_\_ [3]



7. Susan received \$40 each day for food and transport. She saved the rest of the amount of money after she spent on food and transport. The graph shows the daily amount of money she spent from Monday to Friday.



- What is the difference between the amount Susan spent on Wednesday and Friday?
- What was the total amount of money she saved on Monday and Tuesday?
- Write down all the days in which Susan saved more than half of her daily amount of money.

Ans : (a) \_\_\_\_\_ [1]

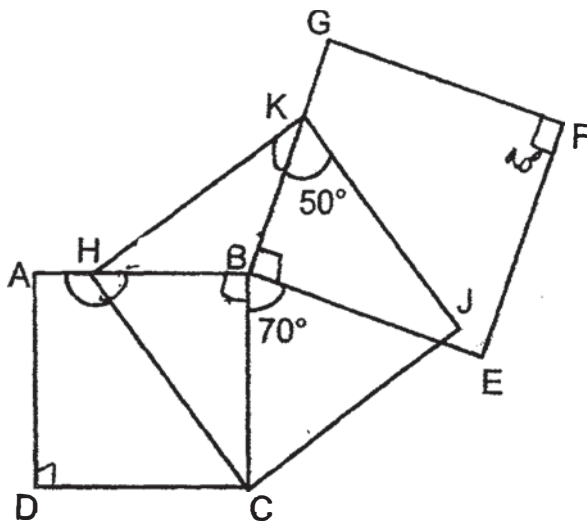
(b) \_\_\_\_\_ [1]

(c) \_\_\_\_\_ [1]

8. Ali and Sara started jogging from the same place in opposite directions along a straight path. Both of them did not change their speed. After jogging for 40 minutes, they were 7 km apart. Ali's average speed was 30 m/min faster than Sara's. How far did Ali jog?

Ans : \_\_\_\_\_ [3]

9. In the figure below, not drawn to scale, ABCD, HKJC and BGFE are squares.  $\angle BKJ = 50^\circ$  and  $\angle CBE = 70^\circ$ . Find  $\angle AHC$ .



Ans : \_\_\_\_\_ [3]

10. The table below shows the price of pencils and erasers sold at a bookshop.

Item	Price per item
Pencil	$b$ cents
Eraser	$(b + 10)$ cents

- (a) Azhar bought 3 pencils and 1 eraser. How much did he spend?  
Give your answer in terms of  $b$ .
- (b) Raman paid \$5.50 for 8 pencils and a number of erasers.  
If  $b = 35$ , how many ~~erasers~~ did he buy?  
**erasers**

Ans : (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

11. A total of \$1 332.50 was collected from the sales of adult and child tickets to a concert. \$635.50 more was collected from the sale of the adult tickets than the child tickets. Each child ticket cost \$3.50 less than an adult ticket. There were twice as many adult tickets sold as the child tickets. Find the total number of children who went to the concert.

Ans : \_\_\_\_\_ [4]

12. Michael uses identical shaded and unshaded triangles to form figures that follow a pattern as shown below.



Figure 1



Figure 2

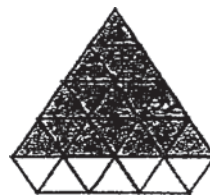


Figure 3

- (a) The table shows the number of shaded and unshaded triangles for the first three figures. Complete the table for Figure 4.

Figure Number	1	2	3	4
Number of shaded triangles	4	9	16	
Number of unshaded triangles	3	5	7	
Total number of shaded and unshaded triangles	7	14	23	

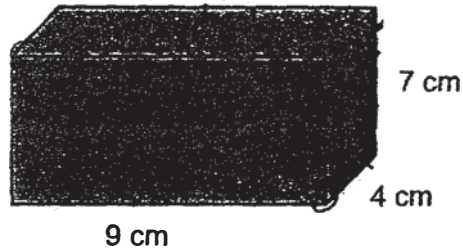
[1]

- (b) A figure in the pattern has a total of 529 shaded triangles. What is the Figure Number?
- (c) Another figure in the pattern has a total of 63 unshaded triangles. What is the total number of shaded and unshaded triangles in this figure?

Ans : (b) \_\_\_\_\_ [1]

(c) \_\_\_\_\_ [2]

13. Ramesh had a rectangular block of wood 9 cm by 4 cm by 7 cm. He painted all the faces of the block.



- (a) What is the total painted area?
- (b) Ramesh cut the block into 1-cm cubes.  
How many of these cubes have only 1 of their faces painted?

Ans : (a) \_\_\_\_\_ . [2]

(b) \_\_\_\_\_ . [2]

14. Jerry, Ken and Leon shared some stamps. Jerry took 408 stamps. Ken took  $\frac{1}{4}$  of the remainder. Leon had 24% of the total number of stamps. How many stamps did the 3 boys have altogether?

Ans : \_\_\_\_\_ . [4]



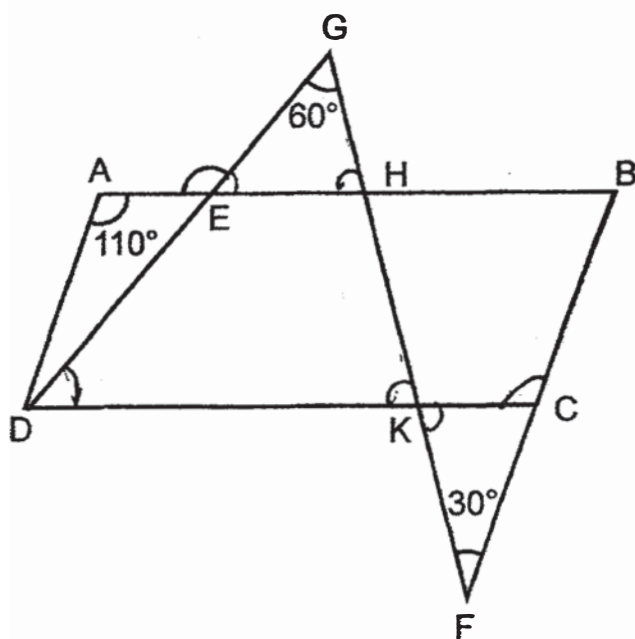
15. A group of girls sold an average of 60 balloons at a carnival. Then 2 boys joined the group. The two boys sold a total of 165 balloons. After the two boys joined the group, the average number of balloons sold by all the boys and girls became 65. How many girls were there in the group?

Ans : \_\_\_\_\_ [4]

16. In the figure below, not drawn to scale, ABCD is a parallelogram. GED, GHKF and BCF are straight lines.  $\angle DAE = 110^\circ$ ,  $\angle EGH = 60^\circ$  and  $\angle KFC = 30^\circ$ .

(a) Find  $\angle KCF$

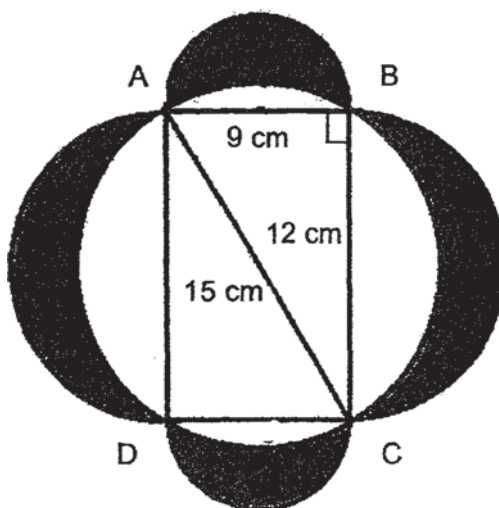
(b) Find  $\angle AEG$



Ans : (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]

17. The figure is made up of four semi-circles and a rectangle ABCD. AB = 9 cm, BC = 12 cm and AC = 15 cm. Find the total area of the shaded parts. Take  $\pi = 3.14$ .



Ans : \_\_\_\_\_ [5]

---

End of Paper 2



# ANSWER KEY

**YEAR** : 2018  
**LEVEL** : PRIMARY 6  
**SCHOOL** : ANGLO-CHINESE  
**SUBJECT** : MATHEMATICS  
**TERM** : PRELIMINARY EXAMINATION

## Paper 1

Q1	3	Q4	1	Q7	4	Q10	3	Q13	1
Q2	3	Q5	2	Q8	1	Q11	2	Q14	4
Q3	3	Q6	4	Q9	2	Q12	2	Q15	4

Q16 75 girls

Q17 640 ml

Q18 15.2 cm

Q19 84 cm

Q20 76 beads

Q21  $\frac{3}{7}$

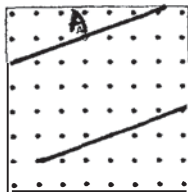
Q22 3

Q23 31 pears

Q24 130°

Q25 \$80

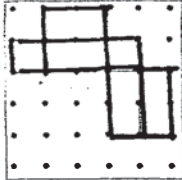
Q26



Q27 145 g

Q28 71 kg

Q29



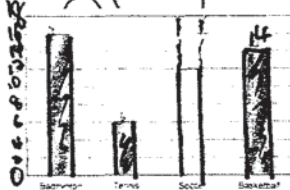
Q30 30%

Paper 2

Q1  $9 \times 5 = 45$   
 $45 + 2 \Rightarrow 47 \text{ candies}$

Q2  $44 - 30 = 14$   
 $14 - 8 = 6$   
 $\frac{1}{2} \times 8 \times 6 = 24$   
 $24 \times 3 \Rightarrow 72 \text{ cm}^2$

Q3



Q4



Q5 Shaded parts  $\rightarrow 1 + (13 - 4) = 10$   
 Unshaded part  $\rightarrow 4 - 1 = 3$   
 $S : U \Rightarrow \underline{10 : 3}$

Q6  $28u - 20u = 8u$   
 $8u \rightarrow 40$   
 $28u \rightarrow \frac{28}{8} \times 40 \Rightarrow \underline{140 \text{ stamps}}$

Q7 (a)  $24 - 16 \Rightarrow \underline{\$8}$

(b)  $40 - 14 = 26$   
 $40 - 32 = 8$   
 $26 \div 8 \Rightarrow \underline{\$34}$

(c) Mon, Wed, Thu

Q8  $40 \times (1u + 30) = 40u + 1200$   
 $40u + 1200 + 40u = 80u + 1200$   
 $7000 = 80u + 1200$   
 $(-1200) \quad (-1200)$   
 $5800 = 80u$   
 $40u = 5800 \div 2 = 2900$   
 $2900 + 1200 \Rightarrow \underline{4100 \text{ m}}$

Q9  $\angle HKB \rightarrow 90^\circ - 50^\circ = 40^\circ$   
 $\angle KBH \rightarrow 360^\circ - 180^\circ - 70^\circ = 110^\circ$   
 $\angle BHK \rightarrow 180^\circ - 110^\circ - 40^\circ = 30^\circ$   
 $\angle BHC \rightarrow 90^\circ - 30^\circ = 60^\circ$   
 $\angle AHC \rightarrow 180^\circ - 60^\circ = 120^\circ$

Q10 (a)  $b + b + b + b + 10 \Rightarrow \underline{(4b + 10) \text{ ¢}}$

(b)  $8b \rightarrow 8 \times 35 = 280 \text{ ¢} = \$2.80$   
 $5.50 - 2.80 = \$2.70 = 270 \text{ ¢}$   
 $35 + 10 = 45 \text{ ¢}$   
 $270 \div 45 \Rightarrow \underline{6 \text{ erasers}}$



Q11  $1u + 7u = 635.50$   
 $2u + 7u = 1332.50$   
 $2u = 697$   
 $1u = 697 \div 2 = \$348.50$   
 $\$348.50 + 7u = 635.50$   
 $7u = 287$   
 $1u = 287 \div 7 \Rightarrow \underline{41 \text{ children}}$

Q12 (a)

4
25
9
34

(b) Figure Number 22

(c) 1087

Q13 (a)  $2 \times (9 \times 7) + 2 \times (9 \times 7) + 2 \times (9 \times 4)$   
 $= 126 + 56 + 72 \Rightarrow \underline{254 \text{ cm}^2}$

(b) Total number of cubes on the front and back surfaces with one of the faces painted  $\rightarrow 2 \times 7 \times 5 = 70$   
 Total number of cubes on the left and right surfaces with one of the faces painted  $\rightarrow 2 \times 2 \times 5 = 20$   
 Total number of cubes on the top and bottom surfaces with one of the faces painted  $\rightarrow 2 \times 7 \times 2 = 28$   
 $70 + 20 + 28 \Rightarrow \underline{118 \text{ cubes}}$

Q14  $3u \rightarrow 24\%$   
 $4u \rightarrow \frac{4}{3} \times 24 = 32\%$   
 $100\% - 32\% = 68\%$   
 $68\% \rightarrow 408$   
 $100\% \rightarrow \frac{100}{68} \times 408 \Rightarrow \underline{600 \text{ stamps}}$

- Q15 Difference (in average)  $\rightarrow 65 - 60 = 5$   
 Difference (between 2 girls and 2 boys)  $\rightarrow 165 - 60 - 60 = 45$   
 Number of girls and boys at the end  $\rightarrow 45 \div 5 = 9$   
 Number of girls  $\rightarrow 9 - 2 \Rightarrow \underline{7}$

Q16 (a)  $\angle KCF \rightarrow 180^\circ - 110^\circ \Rightarrow \underline{70^\circ}$

(b)  $\angle FKC \rightarrow 180^\circ - 70^\circ - 30^\circ = 80^\circ$   
 $\angle HEG \rightarrow 180^\circ - 80^\circ - 60^\circ = 40^\circ$   
 $\angle AEG \rightarrow 180^\circ - 40^\circ \Rightarrow \underline{140^\circ}$

Q17  $\frac{1}{2} \times 9 \times 12 = 54 \text{ cm}^2$

$\frac{1}{2} \times 3.14 \times 4.5 \times 4.5 = 31.79 \text{ cm}^2$

$\frac{1}{2} \times 3.14 \times 6 \times 6 = 56.52 \text{ cm}^2$

$54 + 31.79 + 56.52 = 142.31 \text{ cm}^2$

$\frac{1}{2} \times 3.14 \times 7.5 \times 7.5 = 88.31 \text{ cm}^2$

$142.31 - 88.31 = 54 \text{ cm}^2$

$54 \times 2 \Rightarrow \underline{108 \text{ cm}^2}$

End



Name: \_\_\_\_\_ (     )

Class: Primary 6 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



**Primary 6 Mathematics**

**2018 Preliminary Examination**

**Paper 1**

**Booklet A**

**21 August 2018**

**15 questions**

**20 marks**

**Total Time for Booklets A and B: 1 hour**

**INSTRUCTIONS TO CANDIDATES**

Do not turn over this page until you are told to do so..

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of calculators is **NOT** allowed.

This booklet consists of 8 printed pages.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3, or 4) on the Optical Answer Sheet.

(20 marks)

---

1. 3 ones, 9 tenths and 5 thousandths is \_\_\_\_\_.

- (1) 0.395
- (2) 3.095
- (3) 3.905
- (4) 3.95

2. Which of the following numbers has no remainder when it is divided by 4?

- (1) 5402
- (2) 5204
- (3) 4502
- (4) 4250

3. Which of the following fractions is closest to  $\frac{1}{3}$ ?

- (1)  $\frac{1}{2}$
- (2)  $\frac{2}{3}$
- (3)  $\frac{4}{9}$
- (4)  $\frac{7}{12}$

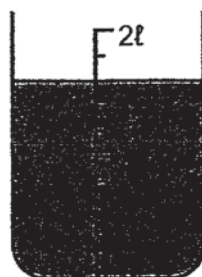
4. At a fruit stall, the ratio of the number of apples to the number of oranges is 3 : 4. The ratio of the number of apples to the number of pears is 5 : 2. What is the ratio of the number of pears to the number of oranges?

- (1) 1 : 2
- (2) 1 : 3
- (3) 2 : 5
- (4) 3 : 10

5. Simplify  $12 \times m + 3 - (8m \div 2 - 1)$ .

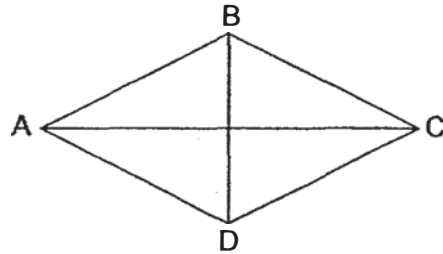
- (1)  $2m + 2$
- (2)  $2m - 4$
- (3)  $8m + 2$
- (4)  $8m - 4$

6. How much water is in the container shown below?



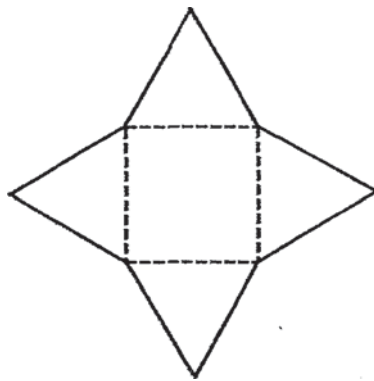
- (1) 800 ml
- (2) 1000 ml
- (3) 1300 ml
- (4) 1600 ml

7. ABCD is a rhombus. Which line is parallel to AB?



- (1) AC
- (2) AD
- (3) BC
- (4) CD

8. Which of the following solids does this net belong to?

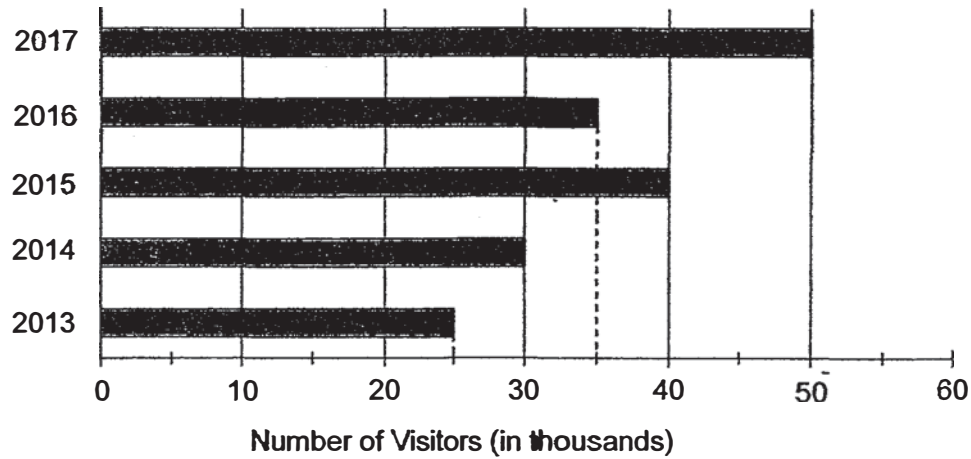


- (1) Cube
- (2) Prism
- (3) Pyramid
- (4) Cylinder



Use the information below to answer questions 9 and 10.

The bar graph shows the number of visitors to a zoo from 2013 to 2017.



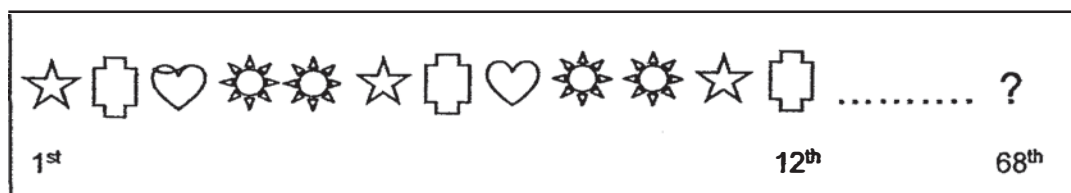
9. During which one-year period was the increase in the number of visitors the greatest?

- (1) Between 2013 and 2014
- (2) Between 2014 and 2015
- (3) Between 2015 and 2016
- (4) Between 2016 and 2017





10. From 2013 to 2017, for how many years did the zoo receive more than 30 000 visitors?

- (1) 1
- (2) 2
- (3) 3
- (4) 4

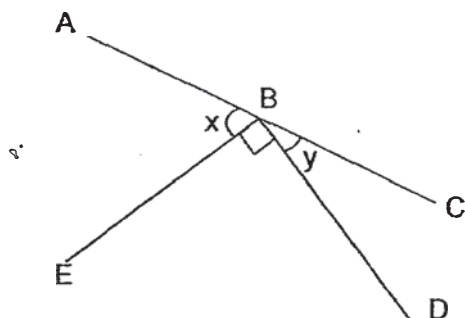
11. David uses some shapes to form a pattern. The first 12 shapes are shown below.



Which shape is in the 68<sup>th</sup> position?

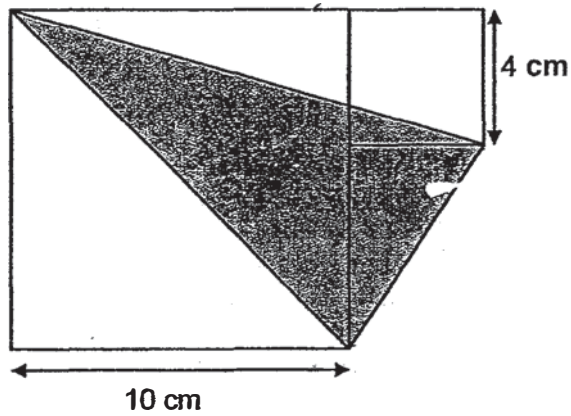
- (1) 
- (2) 
- (3) 
- (4) 

12. In the figure below, ABC is a straight line.  $\angle y$  is  $24^\circ$  smaller than  $\angle x$ . Find  $\angle x$ .



- (1)  $33^\circ$
- (2)  $52^\circ$
- (3)  $57^\circ$
- (4)  $76^\circ$

13. The figure below is made up of two squares and a triangle. Find the area of the shaded part.



- (1)  $26 \text{ cm}^2$   
(2)  $50 \text{ cm}^2$   
(3)  $78 \text{ cm}^2$   
(4)  $98 \text{ cm}^2$
14. Debbie was given a fixed monthly allowance. In January, she spent \$50 of her allowance and saved the rest. In February, she reduced her spending by 20% and her savings increased by 50%. How much was her monthly allowance?

- (1) \$60  
(2) \$70  
(3) \$80  
(4) \$90

15. A group of friends shared some chocolates among themselves. They tried taking 10 chocolates each, but found that the last person had only 2 chocolates. When each person took 8 chocolates, there were 20 left over. How many friends shared the chocolates?

- (1) 14
- (2) 11
- (3) 8
- (4) 6

Name: \_\_\_\_\_ (     )

Class: Primary 6 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



**Primary 6 Mathematics  
2018 Preliminary Examination**

**Paper 1**

**Booklet B**

**21 August 2018**

**15 questions  
25 marks**

Booklet A	20
Booklet B	25
Total (Paper 1)	45

**Total Time for Booklets A and B: 1 hour**

**INSTRUCTIONS TO CANDIDATES**

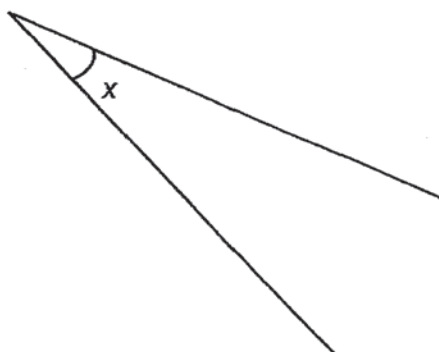
Do not turn over this page until you are told to do so.  
Follow all instructions carefully.  
Answer all questions.  
Write your answers in this booklet.  
The use of calculators is **NOT** allowed.

This booklet consists of 10 printed pages.

Questions 16 to 20 carry 1 mark each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not  
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16. Measure and write down the size of  $\angle x$  in the figure.



Ans : \_\_\_\_\_ °

17. Find the value of  $\frac{5n}{6} + n$  when  $n = 9$ .

Give your answer as a mixed number in its simplest form.

Ans : \_\_\_\_\_

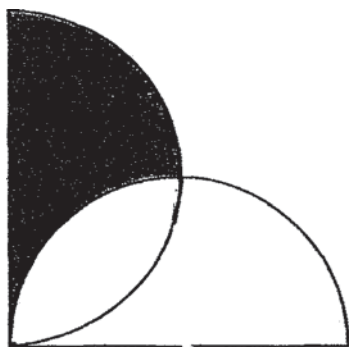


18. A movie started at 11.45 p.m. and ended at 1.35 a.m.  
How long was the movie?

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Ans: \_\_\_\_\_ min

19. The figure below shows two identical semicircles with radius 8 cm each.  
Find the perimeter of the shaded part.  
Leave your answer in terms of  $\pi$ .



Ans : \_\_\_\_\_ cm





20. Dave participated in 5 quizzes. His scores are shown in the table below.

Quiz	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>
Score	12	15	16	18	14

Find his average score.

Ans : \_\_\_\_\_

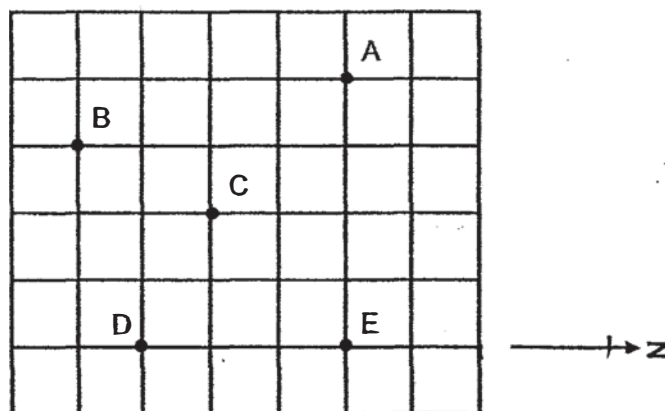
Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

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21. Cherries are sold at \$1.50 per 200 g at the supermarket. What is the price of 4 kg of cherries?

Ans : \$ \_\_\_\_\_

22.

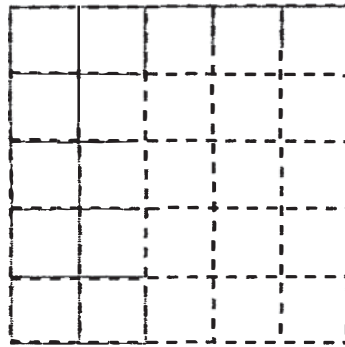
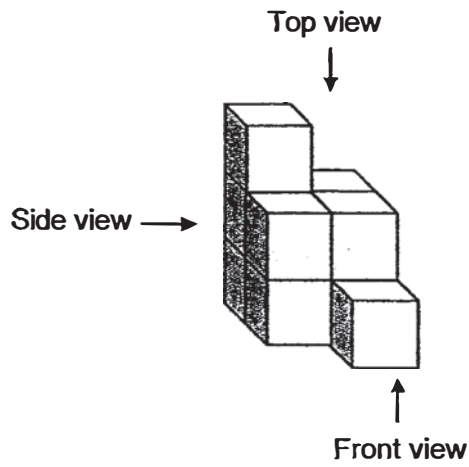


Refer to the square grid above and fill in the blanks with A, B, C, D or E.

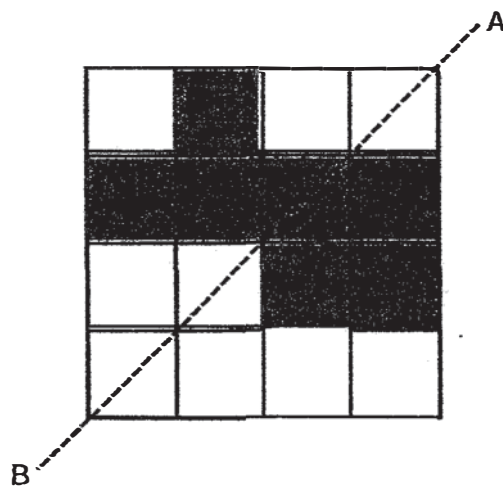
- (a) Point \_\_\_\_\_ is west of Point \_\_\_\_\_ [1]  
 (b) Point \_\_\_\_\_ is north-east of Point \_\_\_\_\_. [1]



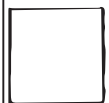
23. Draw the top view of the following solid in the square grid provided.



24. Shade 2 more squares in the figure below so that the dotted line AB is the line of symmetry.



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25. Raja bought a string of 130 decorative red and green light bulbs. There were at least 2 red light bulbs in between every 2 green light bulbs. What was the smallest possible number of red light bulbs in the string of decorative light bulbs?

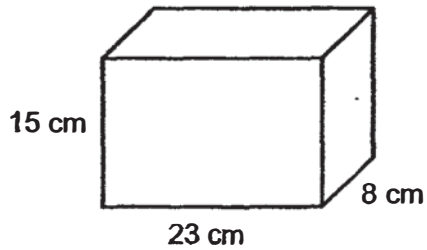
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Ans : \_\_\_\_\_

26. Printer X and Printer Y print a total of 688 pages in 4 minutes. Every minute, Printer X prints 20 pages fewer than Printer Y. At this rate, how many pages does Printer X print in 1 minute?

Ans : \_\_\_\_\_

27. Find the greatest number of 2-cm cubes that can be put into the box below.



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Ans : \_\_\_\_\_

28. Last year, Mr Lee sold an average of 7.5 mobile phones per month from January to October. He did not sell any mobile phone from November to December.

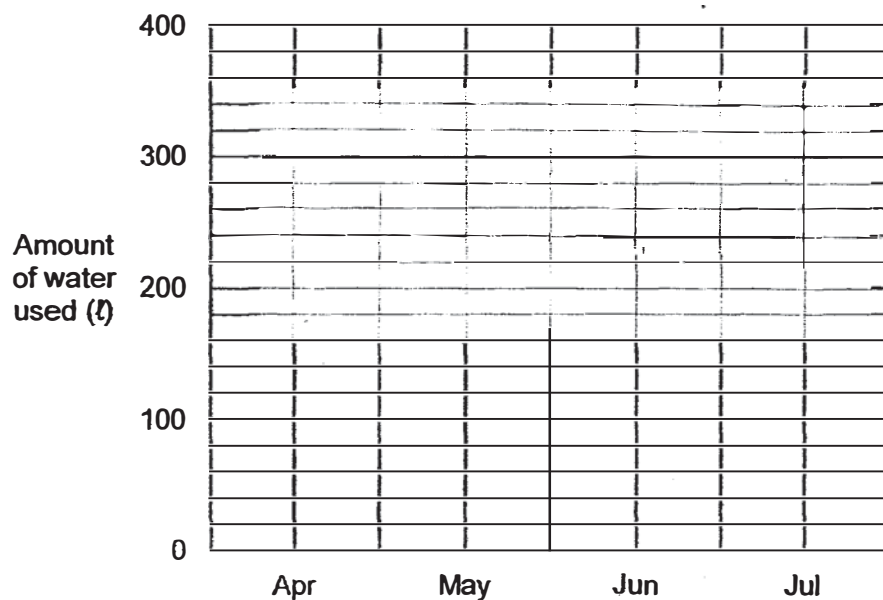
Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

Statement	True	False	Not possible to tell
Mr Lee sold a total of 90 mobile phones last year.			
On the average, the number of mobile phones Mr Lee sold from January to October was higher than the number of mobile phones he sold from January to December.			



29. The line graph below shows the amount of water used by a stall for the months of April to July.

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In the month of March, the stall used 520 ℓ of water. Which two months from April to July was the total amount of water used the same as the month of March?

Ans : \_\_\_\_\_ and \_\_\_\_\_

30. 90 adults took part in a competition.  $\frac{1}{2}$  of the men and  $\frac{1}{4}$  of the women won the competition. There were 25 winners altogether. How many women took part in the competition?

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Ans : \_\_\_\_\_



End of Paper



Name: \_\_\_\_\_ (     )

Class: Primary 6 \_\_\_\_\_

**CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)**



**Primary 6 Mathematics**

**2018 Preliminary Examination**

**Paper 2**

**21 August 2018**

Paper 1	45
Paper 2	55
Total	100

\_\_\_\_\_  
Parent's / Guardian's Signature

**17 questions**  
**55 marks**

**Total Time for Paper 2: 1 hour 30 minutes**

**INSTRUCTIONS TO CANDIDATES**

Do not turn over this page until you are told to do so.  
Follow all instructions carefully.  
Answer all questions.  
Write your answers in this booklet.  
The use of an approved calculator is expected, where appropriate.

This booklet consists of 15 printed pages.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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1. A baker bought 15 kg of flour. He packed the flour into smaller bags of 1.2 kg each and had some flour left. How much flour was left?

Ans : \_\_\_\_\_ g

2. Alice has 69 more candies than Bonnie. Cathy has 27 more candies than Bonnie. Alice has 40 fewer candies than the total number of candies Bonnie and Cathy have. How many candies does Bonnie have?

Ans : \_\_\_\_\_



3. A block of wood was dipped into a pail of paint. The block was then cut into 3 identical cubes along the lines as shown below and taken apart. The total painted area of the 3 cubes was  $686 \text{ cm}^2$ . Find the edge of each cube.



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Ans : \_\_\_\_\_ cm

4. Gracelyn and Hilda saved the same amount of money.  $\frac{1}{3}$  of Gracelyn's savings was \$32.50 more than  $\frac{1}{4}$  of Hilda's savings. How much did each girl save?

Ans : \$ \_\_\_\_\_



5. The table below shows the number of books a group of pupils borrowed from the school library in a week.

Number of books	Number of pupils
0	?
1	34
2	36
3	63
4 or more	81

60% of the pupils borrowed 3 books or more. How many pupils did not borrow any book?

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Ans : \_\_\_\_\_



For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

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6. Springfresh Laundry charges the washing of blankets and curtains as shown in the table below.

Item	Price per kg
Blankets	\$9.00
Curtains	\$10.50

Nancy sent 12 kg of blankets and some curtains for washing. Being a member, Nancy got a \$10 discount when her bill was above \$100. She paid \$266 in total. Find the mass of curtains Nancy sent for washing.

Ans : \_\_\_\_\_ [3]

7. Hafizah took part in a run. She completed 4.2 km in 20 minutes. She then completed the remaining 70% of the run in another hour. Find the average speed, in m/min, at which Hafizah took to complete the run.

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Ans : \_\_\_\_\_ [3]

8. Lydia is  $k$  years old now. Mariam is 2 times as old as Lydia. Naya is 3 years younger than Mariam.

(a) What is Naya's age now?

Express your answer in terms of  $k$  in the simplest form.

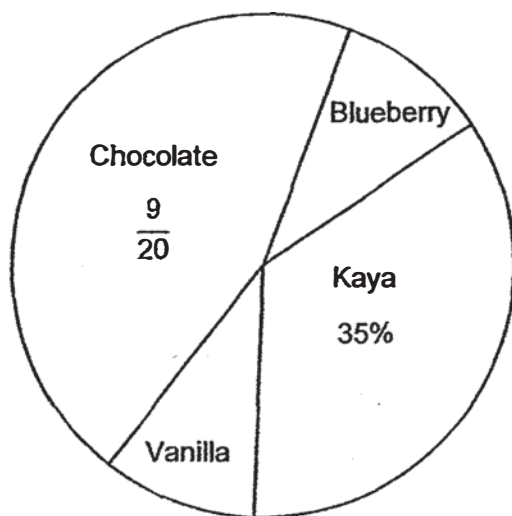
(b) Lydia will be 16 years old five years later. How old is Naya now?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]



9. The pie chart below shows the number of buns sold. In total, 88 blueberry and vanilla buns were sold. How many buns were sold altogether?

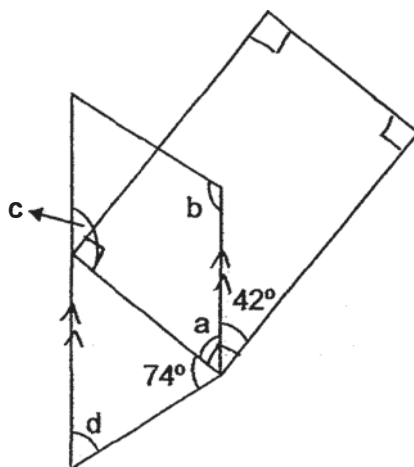


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Ans : \_\_\_\_\_ [3]



10. The figure below shows a trapezium and a rectangle.



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- (a) Which of the following are obtuse angles in the figure?

For each correct answer, put a tick (✓) in the box. [1]

$\angle a$	$\angle b$	$\angle c$	$\angle d$

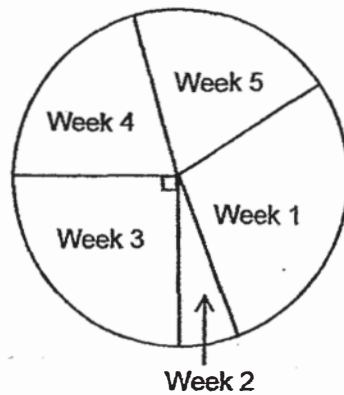
- (b) Find  $\angle d$ .

Ans : (b) \_\_\_\_\_ [2]

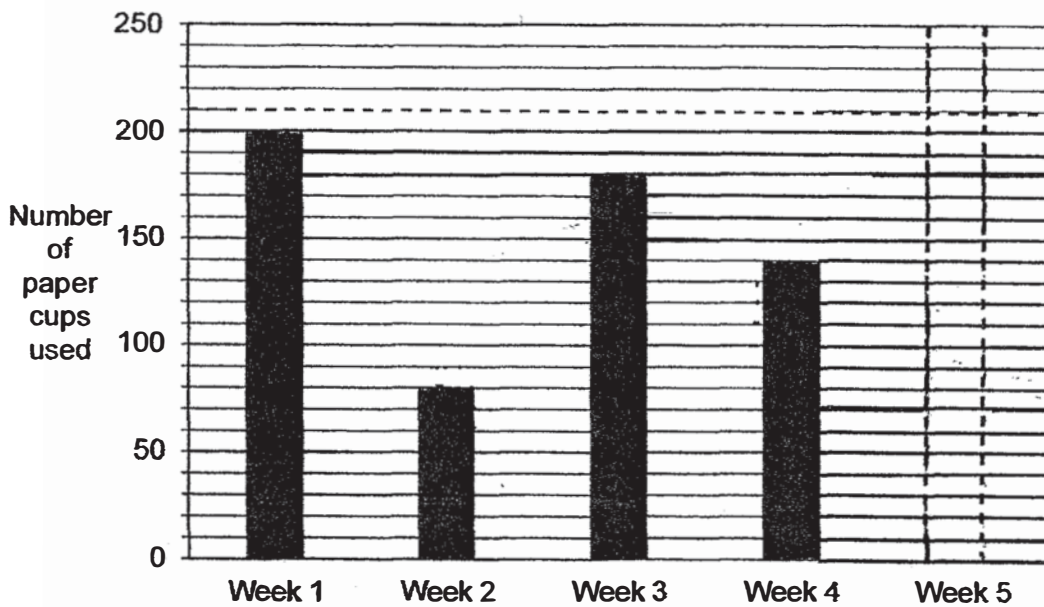


11. The pie chart below represents the number of paper cups used by a canteen vendor in 5 weeks.

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- (a) The number of paper cups used in the 5 weeks is also represented by the bar graph below. The bar that shows the number of paper cups used in Week 5 has not been drawn. Draw this bar in the bar graph below. [2]



- (b) What percentage of the paper cups was used in Week 1?  
Give your answer correct to 2 decimal places.

Ans : \_\_\_\_\_ [1]



12. For a scrapbook-making course, each participant was given some buttons. Each adult received 10 buttons. Each girl received 5 buttons and each boy received 4 buttons. The ratio of the number of girls to the number of boys was 7 : 4. Half of the total number of participants was adults. The participants received a total of 3381 buttons. How many participants were there at the course?

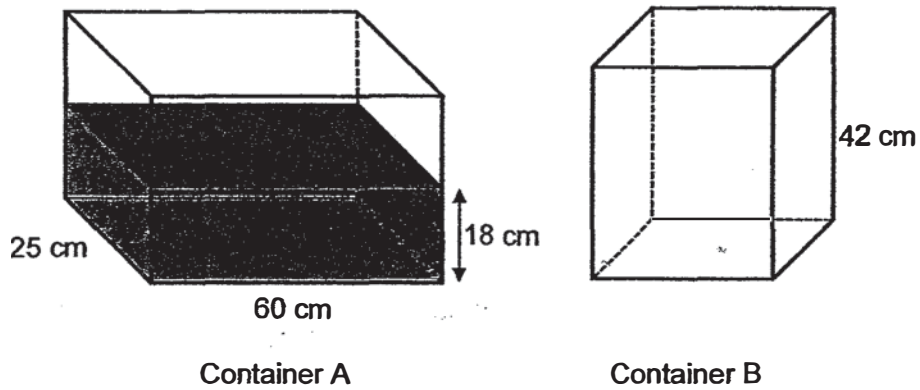
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Ans : \_\_\_\_\_ [4]



13. A and B are two rectangular containers. The base area of Container A is twice the base area of Container B. Container A was filled with water to a height of 18 cm and Container B was empty.

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- (a) What was the volume of the water in Container A?
- (b) All the water from Container A was poured into Container B.  
How much more water was needed to fill Container B to the brim?

Ans : (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]



14. Lisa, Meng and Nin shared some stickers. Lisa had 20% of the stickers.

Meng had 66 stickers and Lisa had 12 more stickers than Nin.

(a) What was the total number of stickers shared among the three children?

(b) Lisa bought some more stickers. The total number of stickers increased by 10%. What was the ratio of the number of Lisa's stickers to the total number of stickers that the three children had in the end?

Leave your answer in the simplest form.

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Ans : (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

15. Kamal, Larry and Muthu were given some concert tickets to sell. Kamal sold  $\frac{1}{3}$  of the tickets. Larry sold  $\frac{2}{5}$  of the remaining tickets and Muthu sold the rest.

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Price of Concert Tickets (per ticket)	
Category 1	\$13
Category 2	\$8

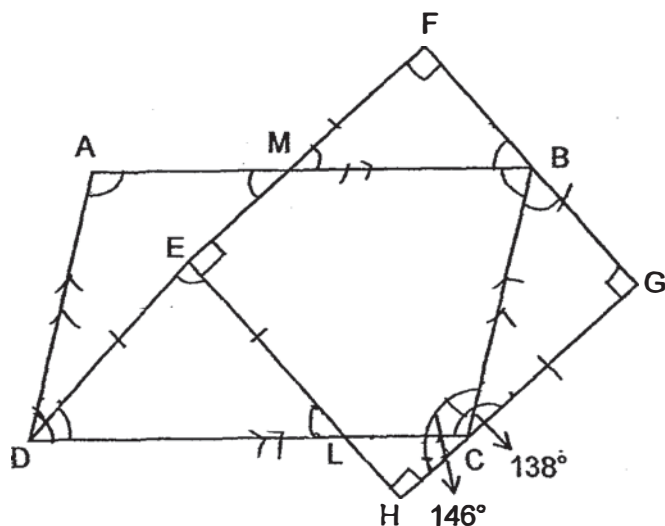
Kamal sold all the Category 1 tickets while Larry and Muthu sold all the Category 2 tickets. Muthu collected \$208 more than Larry. How much money was collected from the sale of the tickets altogether?

Ans : \_\_\_\_\_ [5]

16. In the figure below, ABCD is a parallelogram. EFGH is a square.  $DE = EL$ ,  $\angle DCG = 138^\circ$  and  $\angle BCH = 146^\circ$ .

- (a) Find  $\angle ABC$ .  
(b) Find  $\angle DEL$ .

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Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]





17. The figure below is made up of 3 different squares and a circle with diameter 10 cm. What is the total shaded area?  
Take  $\pi = 3.14$



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Ans : \_\_\_\_\_ [5]



End of Paper



# ANSWER KEY

**YEAR :** 2018  
**LEVEL :** PRIMARY 6  
**SCHOOL :** CHIJ ST NICHOLAS GIRLS'  
**SUBJECT :** MATHEMATICS  
**TERM :** PRELIMINARY EXAMINATION

## Paper 1

Q1	3	Q4	4	Q7	4	Q10	3	Q13	2
Q2	2	Q5	3	Q8	3	Q11	3	Q14	2
Q3	3	Q6	4	Q9	4	Q12	3	Q15	1

Q16  $23^\circ$

Q17  $16\frac{1}{2}$

Q18  $1\text{h } 50\text{min}$

Q19  $(8\pi + 16)\text{ cm}$

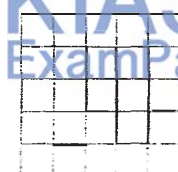
Q20 15

Q21 \$30

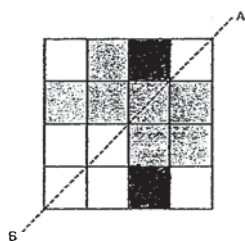
Q22 (a) Point A is west of Point E.

(b) Point E is north-east of Point C.

Q23



Q24



Q25 86

Q26 76

Q27 308

Q28 False  
True

Q29 April and June

Q30 80

Paper 2

Q1  $15 \div 1.2 = 12R$   
 $12 \times 1.2 = 14.4$   
 $15 - 14.4 = 0.6$   
 $0.6 \text{ kg} \Rightarrow 600 \text{ g}$

Q2  $A \rightarrow 1u + 69$   
 $B \rightarrow 1u$   
 $C \rightarrow 1u + 27$   
 $(2u + 27) - (1u + 69) = 40$   
 $2u - (1u + 2) = 40$   
 $2u = 1u + 42 + 40$   
 $= 1u + 82$   
 $1u \Rightarrow 82$

Q3  $686 \div 14 = 49$   
 $\sqrt{49} \Rightarrow 7 \text{ cm}$

Q4  $G \rightarrow \frac{1}{3} = \frac{4}{12}$

$H \rightarrow \frac{1}{4} = \frac{3}{12}$

$1u = 32.50$

$12u = 12 \times 32.50 \Rightarrow \underline{\$390}$

Q5  $60\% \rightarrow 81 + 63 = 144$

$1\% \rightarrow 144 \div 60 = 2.4$

$34 + 36 = 70$

$70 \div 2.4 = 29\frac{1}{6}$

$29\frac{1}{6} + 60 = 89\frac{1}{6}$

$100 - 89\frac{1}{6} = 10\frac{5}{6}$

$10\frac{5}{6} \times 2.4 \Rightarrow \underline{26 \text{ pupils}}$

Q6  $12 \times 9 = 108$

$266 + 10 = 276$

$276 - 108 = 168$

$168 \div 10.50 \Rightarrow \underline{16 \text{ kg}}$

Q7  $100\% - 70\% = 30\%$

$30\% \rightarrow 4.2$

$1\% \rightarrow 4.2 \div 30 = 0.14$

$100\% \rightarrow 0.14 \times 100 = 14 \text{ (total distance)}$

$20 + 60 = 80 \text{ (total time)}$

$14\text{km} = 14000\text{m}$

Average speed  $\frac{\text{Total distance}}{\text{Total time}} = \frac{14000}{80} \Rightarrow \underline{175 \text{ m/min}}$

Q8 (a)  $L \rightarrow k$

$M \rightarrow 2k$

$N \Rightarrow \underline{(2k - 3) \text{ years old}}$

(b)  $16 - 5 = 11$

$k = 11$

$2k = 11 \times 2 = 22 \text{ (M)}$

$22 - 3 \Rightarrow \underline{19 \text{ years old}}$

Q9  $1 - \frac{9}{20} - \frac{7}{20} = \frac{1}{5}$

$\frac{1}{5} \rightarrow 88$

$\frac{5}{5} \rightarrow 88 \times 5 \Rightarrow \underline{440 \text{ buns}}$

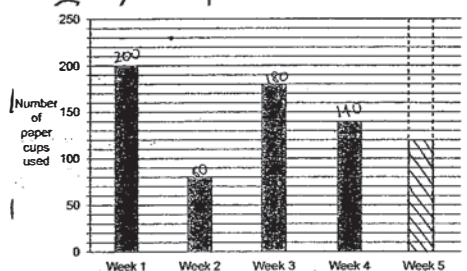
Q10 (a)

$\angle a$	$\angle b$	$\angle c$	$\angle d$
	✓	✓	

(b)  $\angle a \rightarrow 90^\circ - 42^\circ = 48^\circ$   
 $\angle d \rightarrow 180^\circ - 48^\circ - 74^\circ \Rightarrow \underline{58^\circ}$

Q11 (a)

$4 \times 180 = 720$   
 $720 - 200 - 80 - 180 - 140 \Rightarrow \underline{120^\circ}$



(b)  $\frac{200}{720} \times 100 = 27.777 \approx \underline{27.78\%}$

Q12

$11 \times 10 = 110$   
 $7 \times 5 = 35$   
 $4 \times 4 = 16$   
 $110 + 35 + 16 = 161$   
 $3381 \div 161 = 21$   
 $21 \times 22 \Rightarrow \underline{462 \text{ participants}}$

Q13 (a)  $25 \times 60 \times 18 \Rightarrow \underline{27000 \text{ cm}^3}$

(b) Base area of A  $\rightarrow 25 \times 60 = 1500$   
Base area of B  $\rightarrow 1500 \div 2 = 750$   
Capacity of B  $\rightarrow 750 \times 42 = 31500$   
 $31500 - 27000 \Rightarrow \underline{4500 \text{ cm}^3}$

Q14 (a)  $\frac{4}{5} \rightarrow 66 + \left(\frac{1}{5} - 12\right)$

$$\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$$

$$\frac{3}{5} \rightarrow 66 - 12 = 54$$

$$\frac{1}{5} \rightarrow 54 \div 3 = 18$$

$$\frac{5}{5} \rightarrow 18 \times 5 \Rightarrow \underline{90 \text{ stickers}}$$

(b)  $\frac{10}{100} \times 90 = 9$

$$90 - 9 = 99$$

$$99 - 66 = 27$$

$$27 : 99 \Rightarrow \underline{3 : 11}$$

Q15  $5 \times 3 = 15$

$$\frac{1}{3} \times 15 = 5$$

$$15 - 5 = 10$$

$$\frac{2}{5} \times 10 = 4$$

$$10 - 4 = 6$$

$$6u - 4u = 2u$$

$$2u = 208$$

$$1u = 208 \div 2 = 104$$

$$\frac{10}{15} \rightarrow 10 \times 104 = 1040$$

$$1040 \div 8 = 130$$

$$\frac{2}{3} \rightarrow 130$$

$$\frac{1}{3} \rightarrow 130 \div 2 = 65$$

$$65 \times 2 = 845$$

$$845 + 1040 \Rightarrow \underline{\$1885}$$



Q16 (a)  $\angle BCG \rightarrow 180^\circ - 146^\circ = 34^\circ$   
 $\angle CBG \rightarrow 180^\circ - 34^\circ - 90^\circ = 56^\circ$   
 $\angle ECB \rightarrow 138^\circ - 34^\circ = 104^\circ$

$\angle ABC \rightarrow \frac{360^\circ - (104^\circ \times 2)}{2} \Rightarrow 76^\circ$

(b)  $180^\circ - 42^\circ - 90^\circ = 48^\circ$   
 $\angle DEL \rightarrow 180^\circ - 48^\circ - 48^\circ \Rightarrow 84^\circ$

Q17  $\frac{1}{2} \times 5 \times 5 = 12.5$

$12.5 \times 4 = 50$

$50 \div 16 = 3.125$

$3.125 \times 4 = 12.5$

$3.14 \times 5 \times 5 = 78.50$

$78.5 - 50 = 28.5$

$28.50 + 12.5 \Rightarrow 41 \text{ cm}^2$

ExamPaper

End



Index No.

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**Maha Bodhi School**  
**2018 Preliminary Examination**  
**Primary 6**  
**Mathematics**  
**Paper 1**  
**(Booklet A)**

Name : \_\_\_\_\_ (       )

Class : Primary 6 \_\_\_\_\_

Date : 7 August 2018

Total Duration for Booklets A and B: 1 hour

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**INSTRUCTIONS TO CANDIDATES:**

1. Write your Index No. in the boxes at the top right hand corner.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.
6. The use of calculators is **NOT** allowed.

This booklet consists of **8** printed pages.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)  
All diagrams are not drawn to scale.

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1. Which one of the following is equal to 60 thousands, 40 tens and 15 ones?

- (1) 604 015
- (2) 600 415
- (3) 60 415
- (4) 6415

2. How many eighths are there in  $2\frac{3}{4}$ ?

- (1) 22
- (2) 20
- (3) 11
- (4) 10

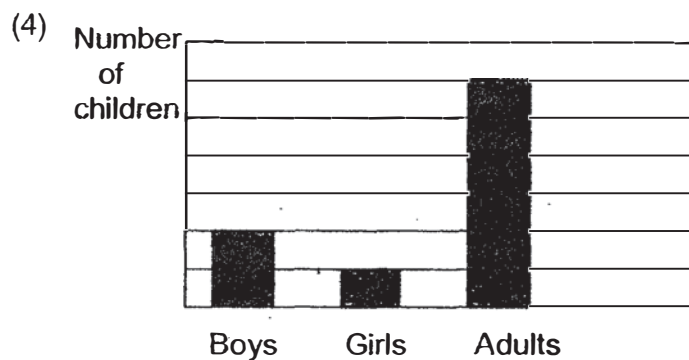
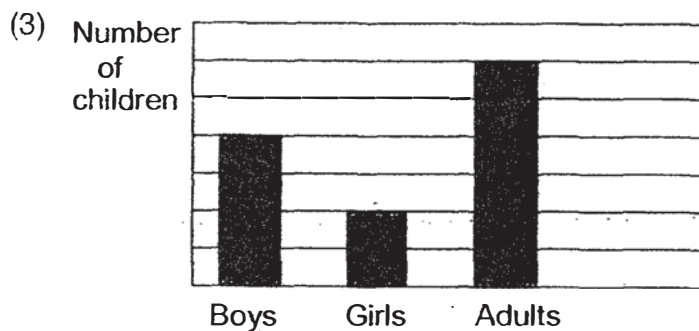
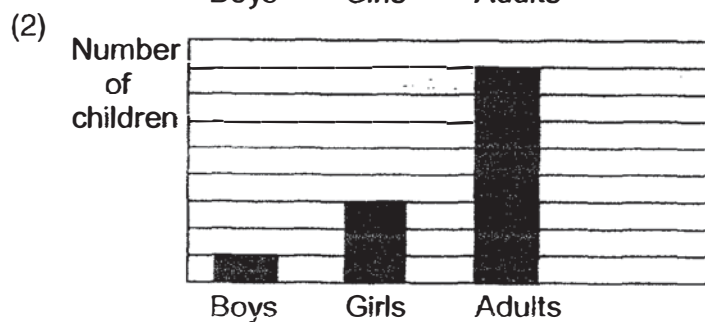
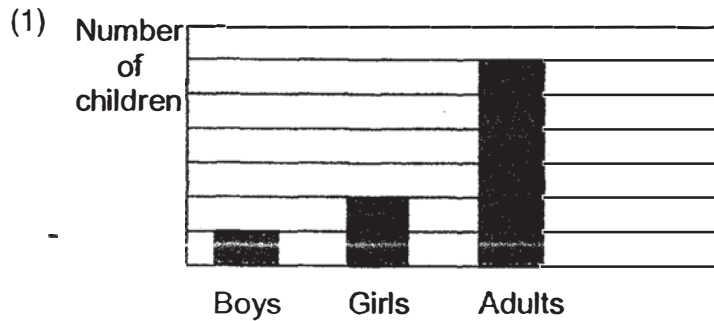
3. 3040 g is the same as \_\_\_\_\_.

- (1) 3 kg 4 g
- (2) 3 kg 40 g
- (3) 30 kg 4 g
- (4) 30 kg 40 g

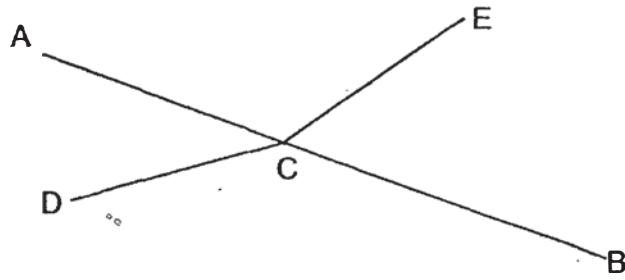
4. Melvin and Ramesh took part in a race. Melvin ran at 5 m/s and took 15 seconds. Ramesh ran at 3 m/s. What was the time taken by Ramesh?

- (1) 15 s
- (2) 25 s
- (3) 45 s
- (4) 75 s

5. There are twice as many boys as girls. There are twice as many adults as children.  
Which one of the following bar graphs shows the above information correctly?

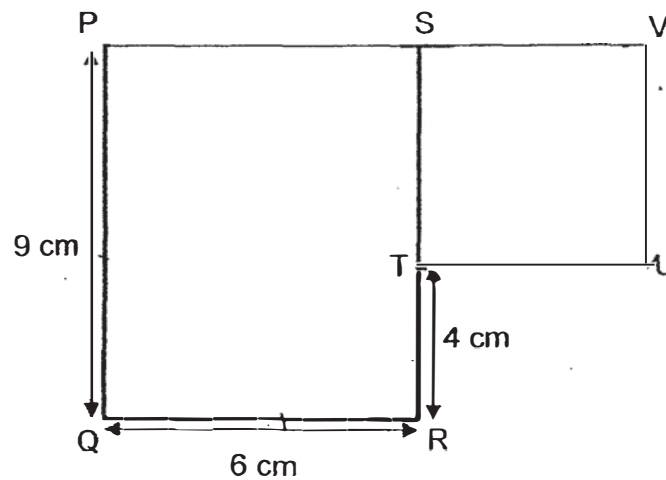


6. In the diagram below, AB, CD and CE are straight lines.



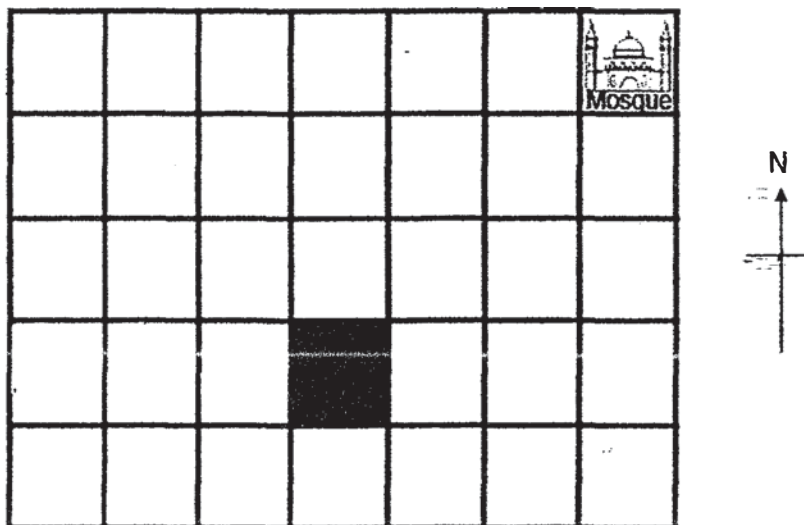
Which one of the following statements about the angles is true?

- (1)  $\angle ACD = \angle ECB$
  - (2)  $\angle ACE = \angle BCD$
  - (3)  $\angle ECB + \angle BCD = 180^\circ$
  - (4)  $\angle ACE + \angle ECB = 180^\circ$
7. The figure below is made up of Rectangle PQRS and Square STUV.  
What is the perimeter of the figure?



- (1) 19 cm
- (2) 34 cm
- (3) 40 cm
- (4) 45 cm

8. In the diagram below, the shaded square is \_\_\_\_\_ of the mosque.



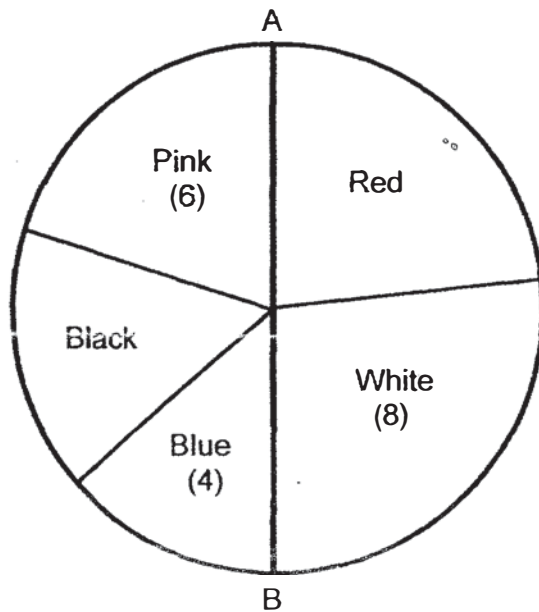
- (1) north-east  
 (2) north-west  
 (3) south-east  
 (4) south-west
9. A car left Village A and travelled at an average speed of 70 km/h towards Town P.  
 A coach left Village B and travelled at an average speed of 50 km/h towards Town Q.  
 Village A and Village B are 10 km apart. How far apart are the two vehicles one hour after the drivers have started their journeys?



- (1) 100 km  
 (2) 110 km  
 (3) 120 km  
 (4) 130 km



10. 30 students in a class were asked to choose a colour for their class T-shirt. Their responses are shown in the pie-chart below. AB is a straight line.



How many more students chose Red than Black?

- (1) 5
  - (2) 2
  - (3) 7
  - (4) 12
11. A solid cuboid of height 5 cm has a square base of side 4 cm. What is its volume?
- (1)  $20 \text{ cm}^3$
  - (2)  $40 \text{ cm}^3$
  - (3)  $80 \text{ cm}^3$
  - (4)  $100 \text{ cm}^3$

12.  $48 \div \boxed{?} = 0.048 \times 100$

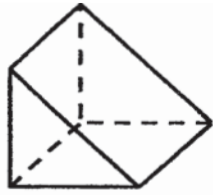
What is the missing number in the box?

- (1) 1
- (2) 10
- (3) 100
- (4) 1000

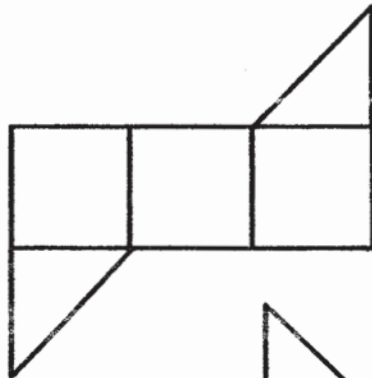
13. John spent \$50 of his allowance and saved the rest. When he increased his spending by 10%, his savings decreased by 20%. How much was his allowance?

- (1) \$44
- (2) \$55
- (3) \$75
- (4) \$80

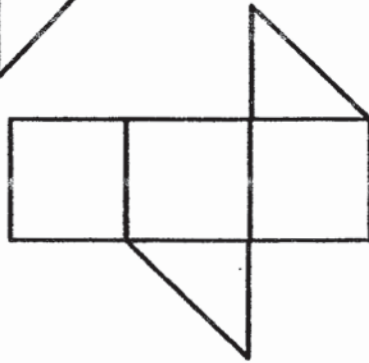
14. A cube was cut into 2 halves to form the solid figure below.  
Which one of the following is a possible net of the solid figure?



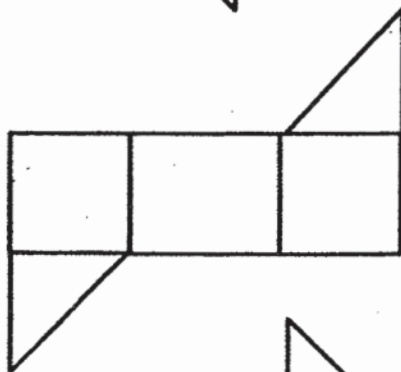
(1)



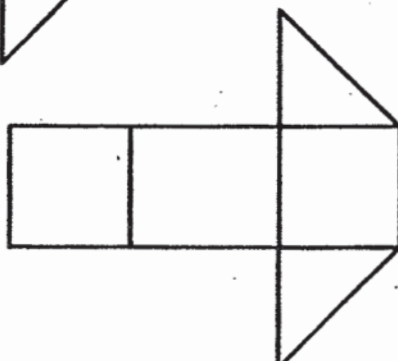
(2)



(3)

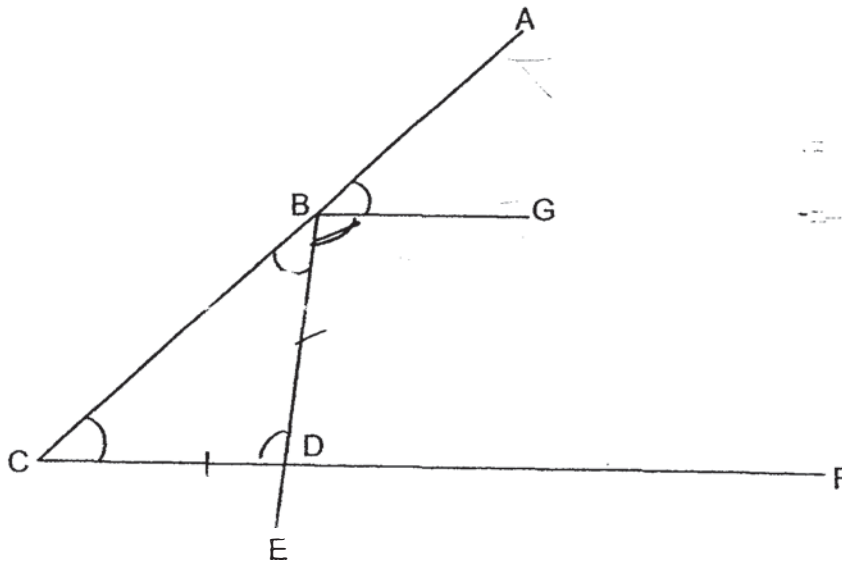


(4)



15. 4 straight lines are connected to form the diagram shown below.

$$\angle ABG = \angle EBC = \angle ACF = 41^\circ.$$



The students in a class then made the following statements:

- $\angle GBC + \angle BCF = 180^\circ$
- $\angle GBD = \angle BDF$
- $BE \perp BG$
- $BG \parallel CF$
- $BD \perp CF$

How many of the above statements are true?

- (1) 5
- (2) 2
- (3) 3
- (4) 4

Index No. 

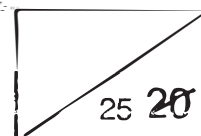
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**Maha Bodhi School**  
**2018 Preliminary Examination**  
**Primary 6**  
**Mathematics**  
**Paper 1**  
**(Booklet B)**

Name : \_\_\_\_\_ (       )

Marks:



Class : Primary 6 \_\_\_\_\_

Date : 7 August 2018

Total Duration for Booklets A and B: 1 hour

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**INSTRUCTIONS TO CANDIDATES:**

1. Write your Index No. in the boxes at the top right hand corner.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write all your answers in this booklet.
6. The use of calculators is **NOT** allowed.

This booklet consists of 7 printed pages.

- Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)  
All diagrams are not drawn to scale.

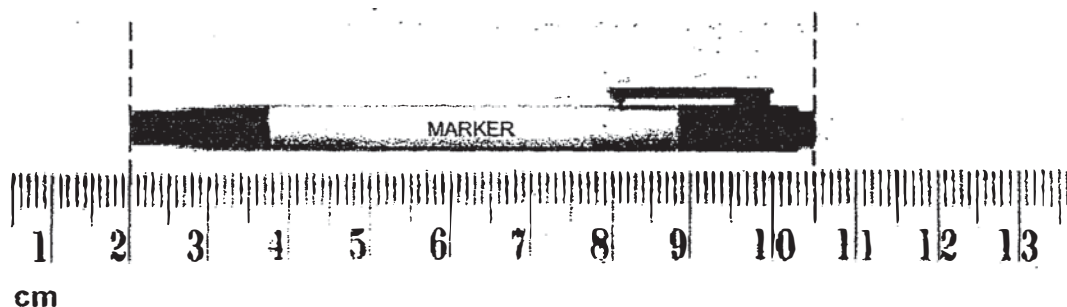
16. How many common factors are there in 24 and 32?

Ans: \_\_\_\_\_

17. Find the value of  $\frac{3}{10} \div 12$ . Give your answer in its simplest form.

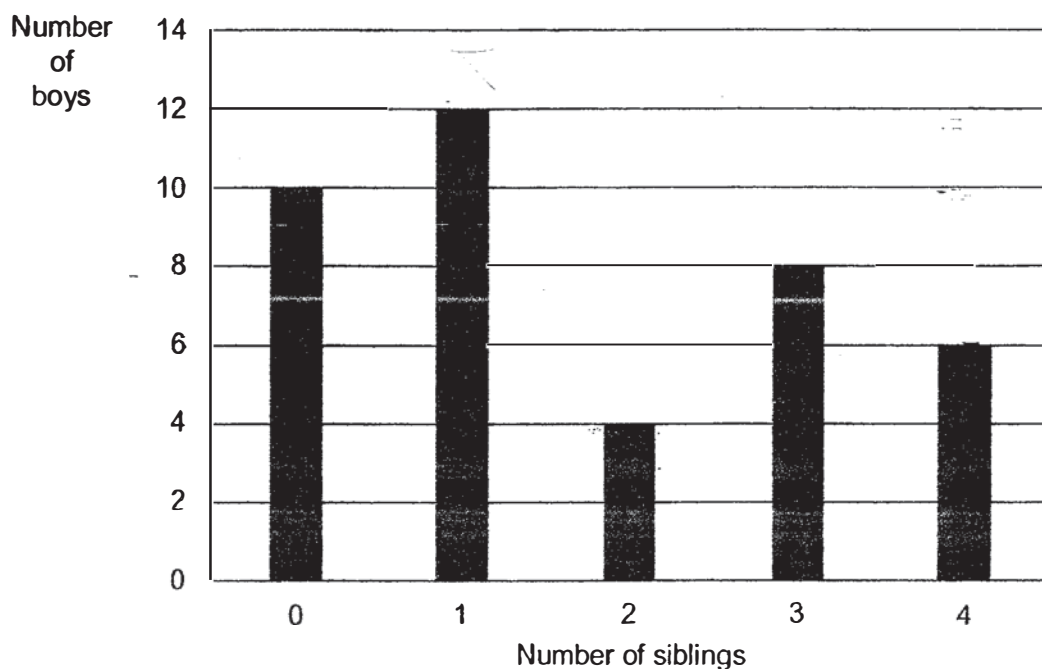
Ans: \_\_\_\_\_

18. What is the length of the marker shown below?



Ans: \_\_\_\_\_ cm

19. A survey was conducted on a group of 40 boys to find out the number of siblings they have. The results of the survey are shown in the bar graph below.



Based on the results, how many boys have the greatest number of siblings?

Ans: \_\_\_\_\_ boys

20. Mr Wee baked  $5n$  cookies. He gave 8 cookies to each of his pupils and had  $n$  cookies left. Express the number of pupils Mr Wee had in terms of  $n$ .

Ans: \_\_\_\_\_ pupils



Questions 21 to 30 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided.

For questions which require units, give your answers in the units stated. (20 marks)

All diagrams are not drawn to scale.

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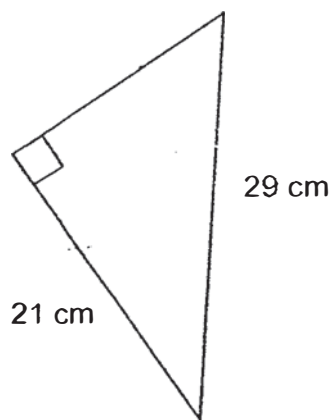
21. A ribbon was 70.1 cm long at first. Alice gave away some of the ribbon and the remaining ribbon was then cut into 6 equal pieces of length 8.7 cm each.

Find the length of ribbon that was given away.

Ans: \_\_\_\_\_ cm

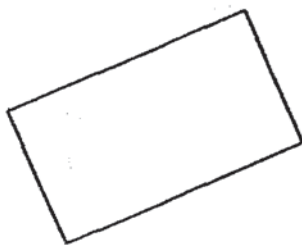
22. The perimeter of the right-angled triangle shown below is 70 cm.

What is the area of the triangle?



\_\_\_\_\_ cm<sup>2</sup>

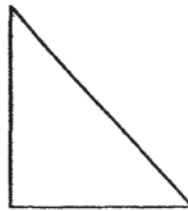
23. Look at the 6 geometrical figures shown below.  
How many of them have both perpendicular and parallel lines?



rectangle



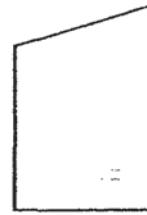
rhombus



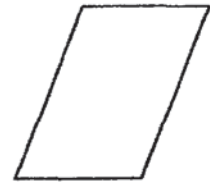
right-angled  
triangle



square



trapezium



parallelogram

Ans: \_\_\_\_\_

24. Mr Wong had some red bowls and 76 blue bowls. He broke 8 red bowls and 6 blue bowls. He had 120 bowls left. How many red bowls did Mr Wong have at first?

Ans: \_\_\_\_\_ red bowls

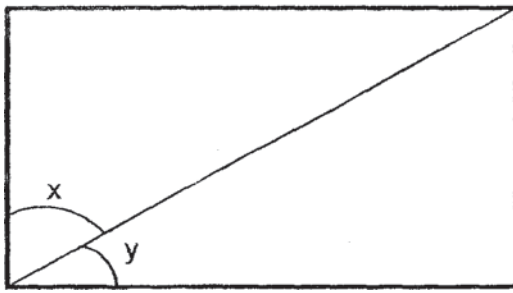
25. Karen had 12 litres of fruit punch at first. Her friends drank  $\frac{1}{4}$  of it.  
Karen then gave  $\frac{1}{2}$  litre of the remaining fruit punch to her neighbours.  
How much fruit punch did Karen have in the end?

Ans: \_\_\_\_\_ litres

26. At a fruit stall, the price of a mango is  $\frac{3}{4}$  the price of a rock melon. The price of a guava is half the price of a mango. What is the ratio of the price of a rock melon to the price of a mango to the price of a guava?

Ans: \_\_\_\_\_

27. In the rectangle shown below,  $\angle x = \frac{3}{2}$  of  $\angle y$ . Find  $\angle x$



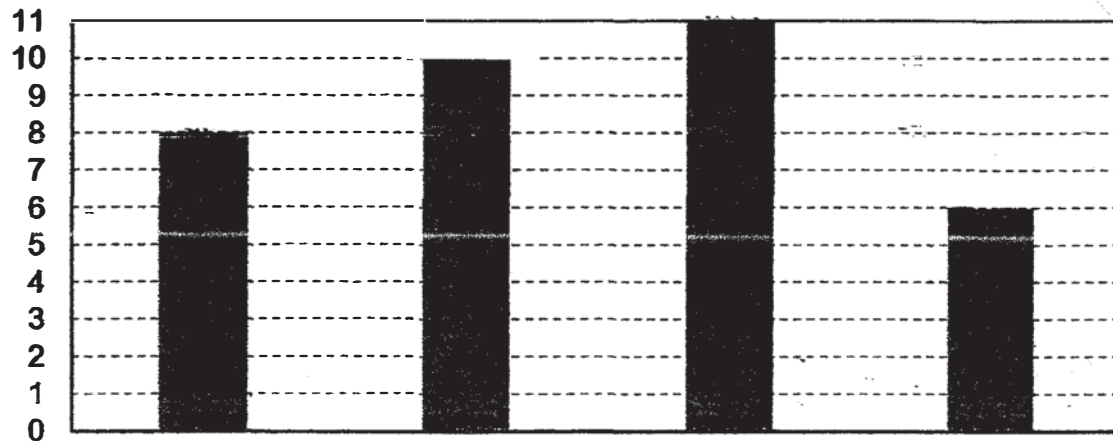
Ans: \_\_\_\_\_°

28. Yi Ting is  $m$  years old. Her father is 4 times her age and 2 years older than her mother. How old was Yi Ting's mother when Yi Ting was born? Express your answer in terms of  $m$  in the simplest form.

Ans: \_\_\_\_\_ years old

29. The bar graph below shows the timing (in minutes) taken by 4 girls to complete a 800 m race.

Time  
(in minutes)



Write down the time taken by Mala to complete the race.

Ans: \_\_\_\_\_ min

30. There were 30 questions in a quiz. For the first 10 questions, Jay took 2 minutes to answer each question. He took thrice as long for each of the remaining questions. The quiz lasted 30 minutes. What is the most number of questions Jay could have answered?

Ans: \_\_\_\_\_ questions

Index No.

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**Maha Bodhi School**  
**2018 Preliminary Examination**  
**Primary 6**  
**Mathematics**  
**Paper 2**

Name : \_\_\_\_\_ (     )

Class : Primary 6 \_\_\_\_\_

Date : 7 August 2018

Duration: 1 h 30 min

**INSTRUCTIONS TO CANDIDATES:**

1. Write your Index No. in the boxes at the top right hand corner.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of an approved calculator is expected, where appropriate.

Paper	Booklet	Marks Obtained	Max Marks
1	A		20
	B		25
2	-		55
<b>Total</b>			<b>100</b>

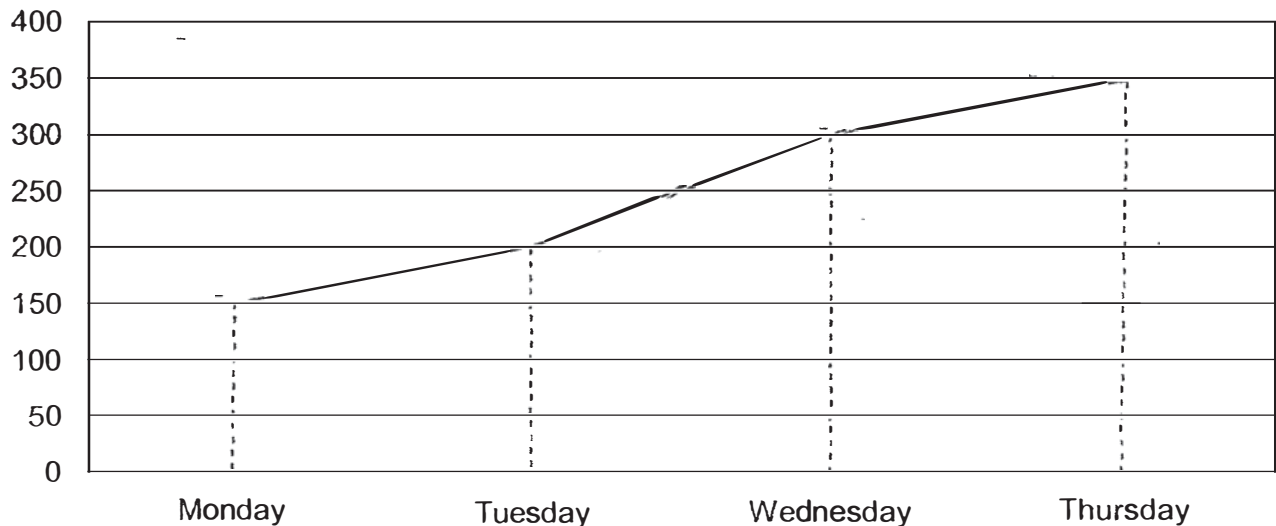
This booklet consists of 13 printed pages.

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)  
All diagrams are not drawn to scale.

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1. The line graph below shows the number of buns sold from Monday to Thursday.

Number of buns  
sold

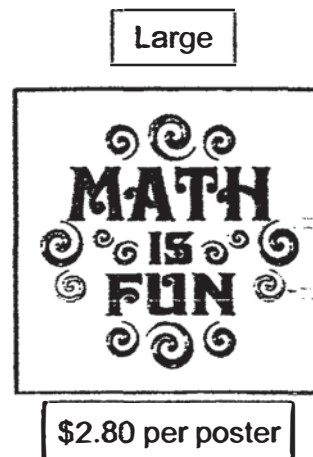


On average, how many buns were sold over the 4 days?

Ans: \_\_\_\_\_ buns



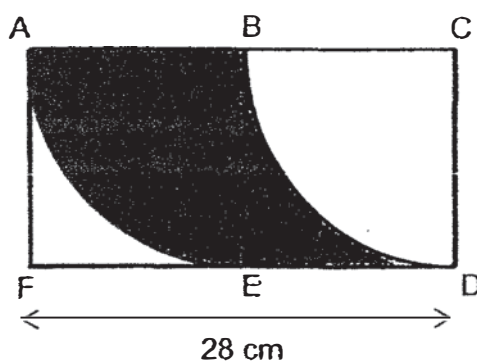
2. Two types of poster are sold at the prices shown.



Yuting paid \$80.60 for some small and large posters. She bought 2 more large posters than small posters. How many small posters did she buy?

Ans: \_\_\_\_\_ small posters

3. In the figure below, ACDF is a rectangle of length 28 cm made up of two identical squares. A quarter circle is drawn in each square. What is the perimeter of the shaded part? (Take  $\pi = \frac{22}{7}$ )



Ans: \_\_\_\_\_ cm

2

4

4. Liming had a piece of wire  $15x$  cm long. He formed a triangle with sides measuring  $x$  cm,  $3x$  cm and  $18$  cm, with part of the wire. What is the length of the remaining wire? Express your answer in terms of  $x$  in the simplest form.

Ans: \_\_\_\_\_ cm

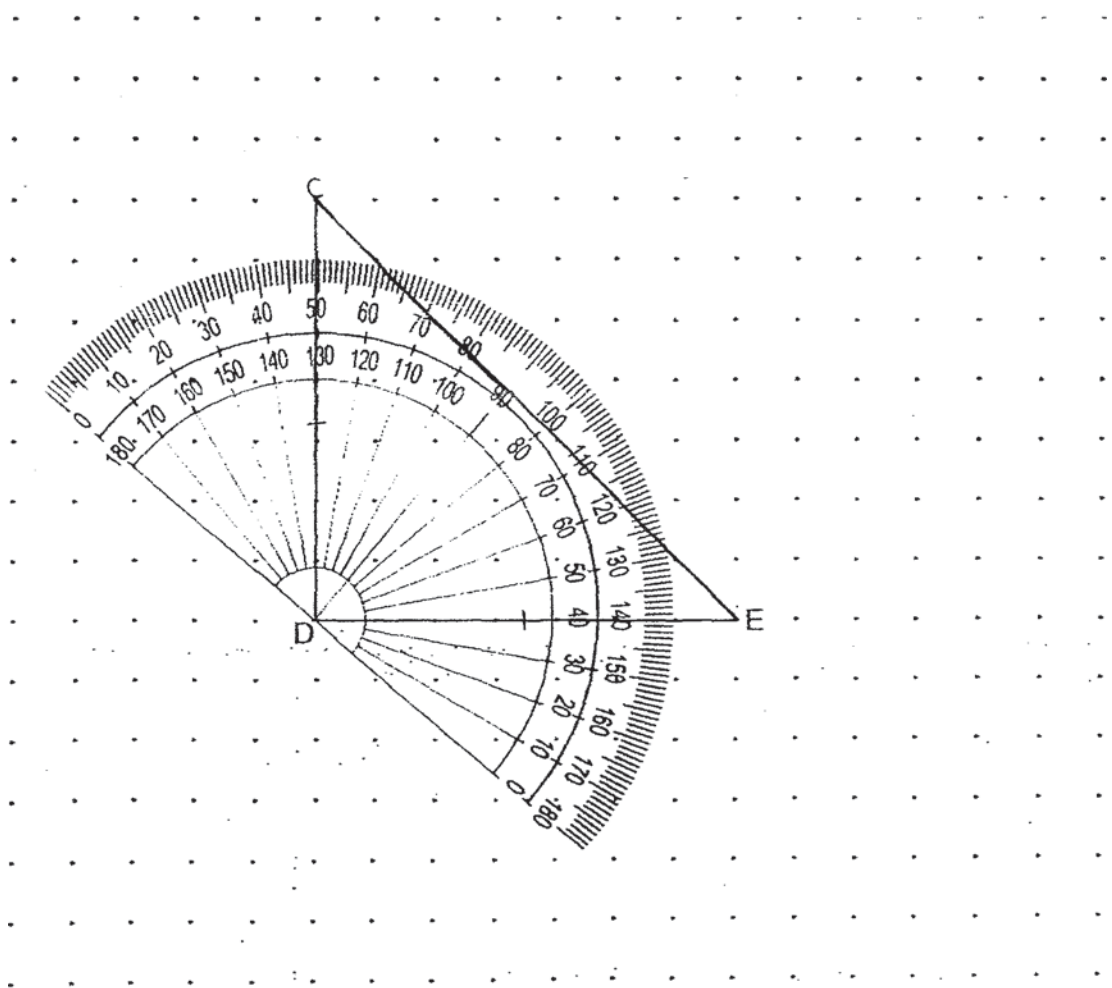
5. A barrel of oil has a mass of  $3.1$  kg when it was  $\frac{1}{4}$  full. The same barrel of oil has a mass of  $8$  kg when it was  $\frac{5}{6}$  full. What was the mass of the barrel of oil when it was completely full?

Ans: \_\_\_\_\_ kg

For questions 6 to 17, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)  
All diagrams are not drawn to scale.

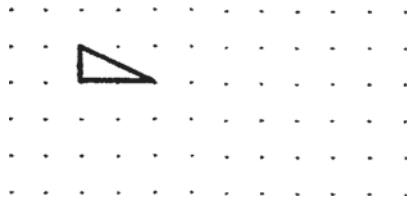
6. CDE is a right-angled isosceles triangle. CD is perpendicular to DE.  
The line DE has been drawn for you.

- (a) Using the protractor in the dot paper below, draw and label Triangle CDE. [2]  
(b) Measure  $\angle DEC$ .

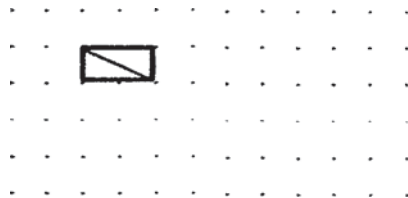


Ans: (b) \_\_\_\_\_ [1]

7. A unit shape in the form of a right-angled triangle is drawn in the dot paper below.

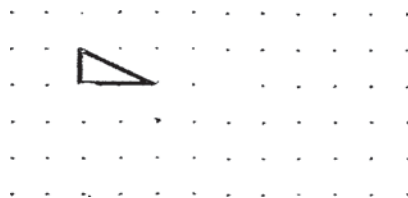


A quadrilateral formed when 2 such unit shapes are joined together as shown below has 2 lines of symmetry,



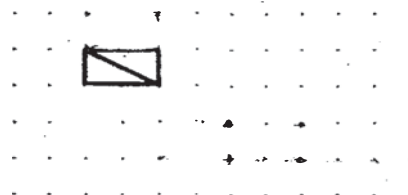
Using the **smallest** number of unit shapes, a pencil, ruler and the given dots, form another 3 different quadrilaterals in the dot paper below such that:

- (a) the quadrilateral formed has no line of symmetry



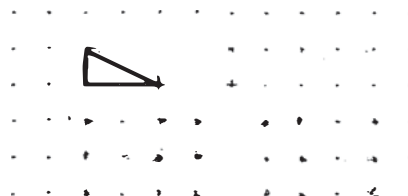
[1]

- (b) the quadrilateral formed has one line of symmetry



[1]

- (c) the quadrilateral formed has four lines of symmetry



[1]



8. Mr Sim takes  $\frac{3}{4}$  h to travel from his home to Town A at an average speed of 64 km/h. If he wants to reach Town A 15 minutes earlier, at what speed must he travel?

Ans: \_\_\_\_\_ [3]

9. A rectangular tank measuring 112 cm by 80 cm is filled with water to a height of 14 cm. When 28.8 litres of water is removed, the water level drops to  $\frac{2}{5}$  the height of the ~~container~~ tank. What is the capacity of the tank?

Ans: \_\_\_\_\_ [4]

10. Sharul was given \$20 on Monday.

He recorded the fraction of the money he had that was spent that day.

The next day, he would bring the amount left from the day before to school and record the fraction of this amount of money that was spent. He repeated this daily.

The table below shows the fraction of his money that he spent on 3 days.

Date Day	13 August Monday	14 August Tuesday	15 August Wednesday	16 August Thursday
Fraction Spent	$\frac{1}{10}$	$\frac{1}{3}$	$\frac{1}{4}$	
Amount left	\$18	(a)		(b)

- (a) What was the amount of money Sharul had left on Tuesday?

- (b) Sharul spent \$2 on Thursday.

What fraction of the money he had on Thursday was spent?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

11. Siti has some 20-cent coins and 50-cent coins in the ratio 3 : 4. The total value of all the coins is \$52. What is the value of all her 20-cent coins?

Ans: \_\_\_\_\_ [3]

12. Ali, Bob and Carl shared a sum of money.  
Ali received 40% of the total amount that Bob and Carl received.  
Bob received 80% of what Carl received.  
Bob received \$96 more than Ali.  
Find the sum of money shared by the 3 boys.

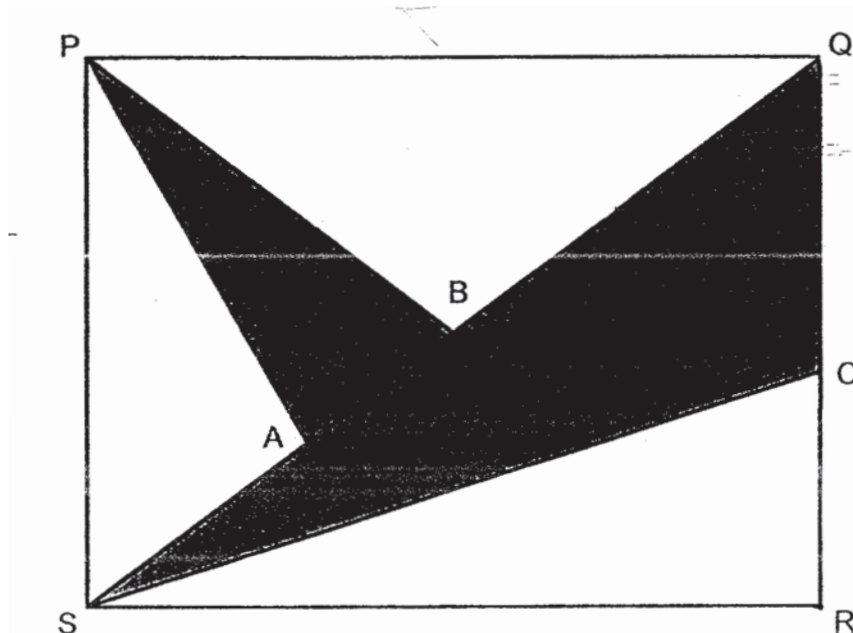
Ans: \_\_\_\_\_ [3]



13. In the rectangle shown below,  $PQ = 28$  cm and  $QR = 21$  cm.

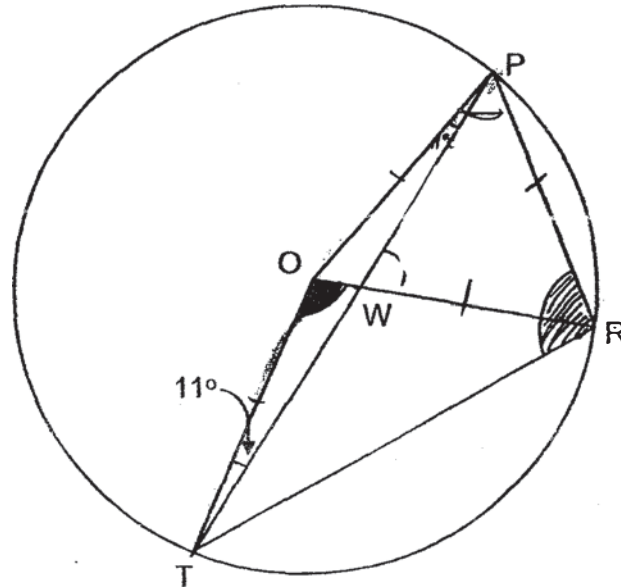
The ratio of  $SA : AB : BQ = 3 : 2 : 5$ ,  $CR$  is  $\frac{3}{4}$  of  $QC$  and  $PB = QB$ .

What fraction of the rectangle PQRS is shaded?



Ans: \_\_\_\_\_ [4]

14. In the diagram below, Triangle OPT, Triangle OPR and Triangle OTR are inside a circle with O being the centre of the circle.  $OR = PR$  and  $\angle PTO = 11^\circ$ .
- (a) Find  $\angle TOR$
- (b) Find  $\angle PRT$



Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

15. The teacher told the class that the average marks for a test was 82 marks. However, Nicole was absent for the test. The table below shows the average marks before Nicole took the test.

	Boys	Girls
Number	20	
Average marks	79	86

After Nicole had taken the test, the teacher changed the average marks for the girls and announced that the final average marks for the class was 82.5 marks.

- (a) How many marks did Nicole score for the test?  
(b) What was the average marks scored by the girls finally?  
Give your answer correct to 1 decimal place.

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

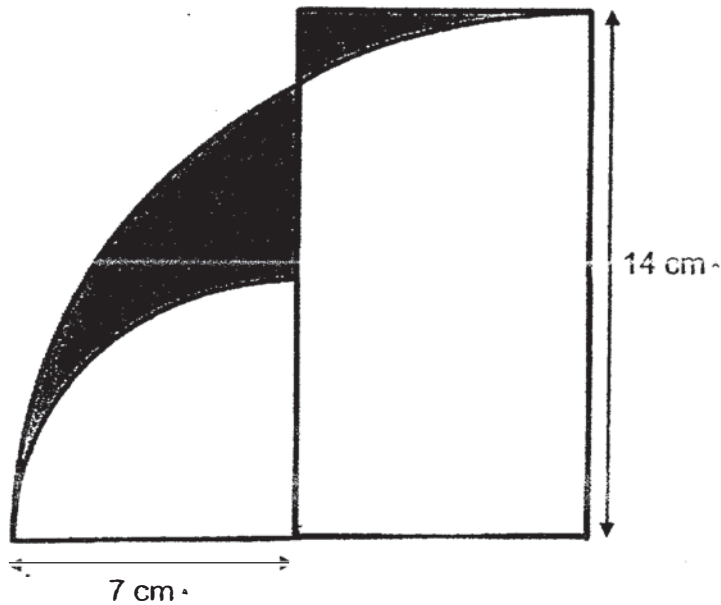
16. The members of the Computer Club are divided into 2 groups.  
There are 12 more members in Group A than in Group B.  
The ratio of the number of boys in Group B to that of Group A is 3 : 4  
 $\frac{3}{4}$  of the girls in the Computer Club are in Group B.  
There are 138 members in the Computer Club.  
How many boys are there in Group A?

Ans: \_\_\_\_\_ [5]

12

/ 5

17. The figure shows two quarter circles and a rectangle. The radius of the big quarter circle is 14 cm. The radius of the small quarter circle is 7 cm. What is the difference in area between the two shaded parts X and Y? (Take  $\pi = \frac{22}{7}$ )



Ans: \_\_\_\_\_ [ 5 ]



/ 5

*Remember to check your work! Every mark counts.  
~ End of Paper ~*



# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : MAHA BODHI SCHOOL  
 SUBJECT : MATHEMATICS  
 TERM : PRELIMINARY EXAMINATION

## PAPER 1 BOOKLET A

Q1	3	Q2	1	Q3	2	Q4	2	Q5	4
Q6	4	Q7	3	Q8	4	Q9	2	Q10	2
Q11	3	Q12	2	Q13	3	Q14	3	Q15	2

## PAPER 1 BOOKLET B

Q16) 4

Q17)  $\frac{1}{40}$

Q18) 8.5cm

Q19) 6

Q20)  $(\frac{n}{2})$

Q21)  $8.7 \times 6 = 52.2$

$70.1 - 52.2 = 17.9\text{cm}$

Q22)  $29 + 21 = 50$

$70 - 50 = 20$

$\frac{1}{2} \times 20 \times 21 = 210\text{cm}^2$

Q23) 3



Q24)  $76 - 6 = 70$

$120 - 70 = 50$

$50 + 8 = \underline{58}$

Q25) Remaining fruit punch  $\rightarrow \frac{3}{4} \times 12$

$= 9 \text{ litres}$

Ans:  $9 - \frac{1}{2} = 8\frac{1}{2} \text{ litres}$

Q26)  $8 : 6 : 3$

Q27)  $3 \rightarrow 3 = 5$

$90 \div 5 = 18$

$18 \times 3 = \underline{54^\circ}$

Q28) Father  $\rightarrow M \times 4$

$= 4m$

Mother  $\rightarrow (4m - 2)$

$4m - 2 - m = (3m - 2) \text{ years old}$

Q29) 8 min

Q30) First 10 qn  $\rightarrow 10 \times 2$

$= 20 \text{ min}$

Remaining time left  $\rightarrow 30 - 20$

$= 10 \text{ min}$

Time taken for ea remaining qn  $\rightarrow 2 \times 3$

$= 6 \text{ min}$

$10 \div 6 \approx 1 \text{ qn}$

$10 + 1 = \underline{11}$

## PAPER 2



Q1)  $150 + 200 + 300 + 350 = 1000$

$1000 \div 4 = \underline{250 \text{ buns}}$

Q2)  $2.80 \times 2 = 5.60$

$80.60 - 5.60 = \$75$

1 set  $\rightarrow 2.20 + 2.80$

$= \$5$

Number of sets  $\rightarrow 75 \div 5$   
 $= \underline{15}$

Q3)  $28 \div 2 = 14$

$$\frac{1}{2} \times \frac{22}{7} \times 28 = 44\text{cm}$$

$$44 + 14 + 14 = \underline{72\text{cm}}$$

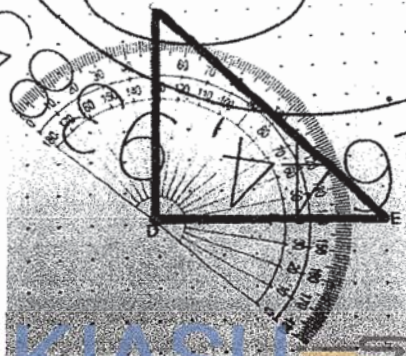
Q4) Length of remaining wire  $\rightarrow 15x - x - 3x - 18$   
 $= \underline{(11x - 18)\text{cm}}$

Q5) 7 units  $\rightarrow 8 - 3.1$   
 $= 4.9\text{kg}$

1 unit  $\rightarrow 4.9 \div 7$   
 $= 0.7\text{kg}$

Mass of barrel of oil  $\rightarrow 8\text{kg} + (0.7\text{kg} \times 2)$   
 $= \underline{9.4\text{kg}}$

Q6a)



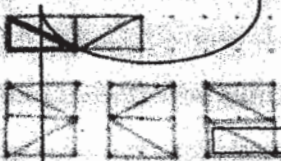
Q6b)  $45^\circ$

Q7)

armed has one line of symmetry



armed has four lines of symmetry



Q8)  $\frac{3}{4} \times 64 = 48$

$\frac{3}{4} h = 45 \text{ min}$

$45 - 15 = 30$

$30 \text{ min} = \frac{1}{2} h$

$48 \div \frac{1}{2} = 96 \text{ km/h}$

Q9) Vol of water in tank at first  $\rightarrow 112 \times 80 \times 14$

$= 125\,440 \text{ cm}^3$

$28.8 \text{ litres} = 28\,800 \text{ cm}^3$

$\frac{2}{5} \rightarrow 125\,440 - 28\,800$

$= 96\,640 \text{ cm}^3$

$\frac{1}{5} \rightarrow 96\,640 \div 2$

$= 48\,320 \text{ cm}^3$

$$\frac{5}{5} = 48\,320 \times 5$$

$$= \underline{241\,600\text{cm}^3}$$

Q10a)  $20 \times \frac{1}{10} = 2$

$$18 \times \frac{1}{3} = 6$$

$$18 - 6 = \$12$$

Q10b)  $12 \times \frac{1}{4} = 3$

$$12 - 3 = 9$$

$$\text{Ans} = \frac{2}{9}$$

Q11)  $20\text{c} : 50\text{c}$

$$3 : 4$$

$$3 \times 0.2 = 0.6$$

$$4 \times 0.5 = 2$$

$$0.6 + 2 = 2.6$$

$$52 \div 2.6 = 20$$

$$20 \times 0.6 = \$12$$

Q12) Bob  $\rightarrow$  80%

Carl  $\rightarrow$  100%

Ali  $\rightarrow \frac{40}{100} \times 180\%$

$$= 72\%$$

$$80 - 72 = 8$$

$$8\% \rightarrow \$96$$

$$252\% \rightarrow 96 \div 8 \times 252$$

$$= \underline{\$3024}$$

Q13) Area of triangle SQR  $= \frac{1}{2} \times 28 \times 21$

$$= 294\text{cm}^2$$

$$\begin{aligned}\text{Area of triangle SQC} &= \frac{1}{2} \times 12 \times 28 \\ &= 168\text{cm}^2\end{aligned}$$

$$\begin{aligned}\text{Area of triangle PBS} &= \frac{1}{4} \times 28 \times 21 \\ &= 147\text{cm}^2\end{aligned}$$

$$\begin{aligned}\text{Area of triangle PAB} &= \frac{2}{5} \times 147 \\ &= 58.5\text{cm}^2\end{aligned}$$

$$\begin{aligned}\text{Area of triangle PQRS} &= 28 \times 21 \\ &= 588\text{cm}^2\end{aligned}$$

$$\begin{aligned}\text{Area of shaded part} &= 588 - 168 \\ &= 226.8\text{cm}^2\end{aligned}$$

$$\text{Fraction} \rightarrow \frac{226.8}{588}$$

$$\text{Ans} = \frac{27}{70}$$

$$\text{Q14a) } \angle OPT = 11^\circ$$

$$OR = PR = OP$$

$$\angle POR = 60^\circ$$

$$\begin{aligned}\angle TOR &= 180 - 11 - 11 - 60 \\ &= 98^\circ\end{aligned}$$

$$\begin{aligned}\text{Q14b) } \angle ORT &= (180 - 98) \div 2 \\ &= 41^\circ\end{aligned}$$

$$\begin{aligned}\angle PRT &= 41 + 60 \\ &= 101^\circ\end{aligned}$$

$$\text{Q15a) Boys} \rightarrow 82 - 79 = 3$$

$$3 \times 20 = 60\text{marks}$$

$$\text{Girls} \rightarrow 86 - 82 = 4$$

$$60 \div 4 = 15 \text{ (girls at first)}$$

$$\text{Original total} \rightarrow (20 + 15) \times 82 \\ = 2870$$

$$\text{Marks scored by Nicole} \rightarrow 2970 - 2870 \\ = \underline{100}$$

$$\text{Q15b) } 1290 + 100 = 1390$$

$$1390 \div 16 = 86.875$$

$$\approx 86.9$$

$$\text{Q16) No of members in A} \rightarrow (138 + 12) \div 2 \\ = 75$$

$$\text{No of members in B} \rightarrow 75 - 12 \\ = 63$$

$$3\text{units} + 3\text{parts} = 4\text{units} + 1\text{part} + 12$$

$$3\text{units} + 3\text{parts} = 63$$

$$4\text{units} + 1\text{part} = 75$$

$$1\text{part} = 75 - 4\text{units}$$

$$3\text{units} + 3(75 - 4\text{units}) = 63$$

$$3\text{units} + 225 - 12\text{units} = 63$$

$$225 - 63 = 12\text{units} - 3\text{units}$$

$$9\text{units} = 162$$

$$1\text{unit} = 162 \div 9$$

$$= 18$$

$$4\text{units} = 18 \times 4$$

$$= 72 \text{ boys}$$

$$\text{Q17) Area of small quadrant} \rightarrow \frac{1}{4} \times \frac{22}{7} \times 7 \times 7$$

$$= 38.5\text{cm}^2$$

$$\text{Area of big quadrant} \rightarrow \frac{1}{4} \times \frac{22}{7} \times 14 \times 14$$

$$= 154\text{cm}^2$$

$$14 \times 7 = 98$$

$$154 - 38.5 = 115.5$$

$$115.5 - 98 = \underline{17.5\text{cm}^2}$$

END





# METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887



## PRELIMINARY EXAMINATION 2018 PRIMARY 6 MATHEMATICS

### PAPER 1 (BOOKLET A)

Total Time for Booklets A and B : 1 hour

#### INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

The use of calculators is not allowed.

Name: \_\_\_\_\_ (    )

Class: Primary 6. \_\_\_\_\_

Date: 2 August 2018

Parent's Signature : \_\_\_\_\_

This booklet consists of 8 printed pages including this page

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.  
(20 marks)

1. Round 538 527 to the nearest ten thousands.

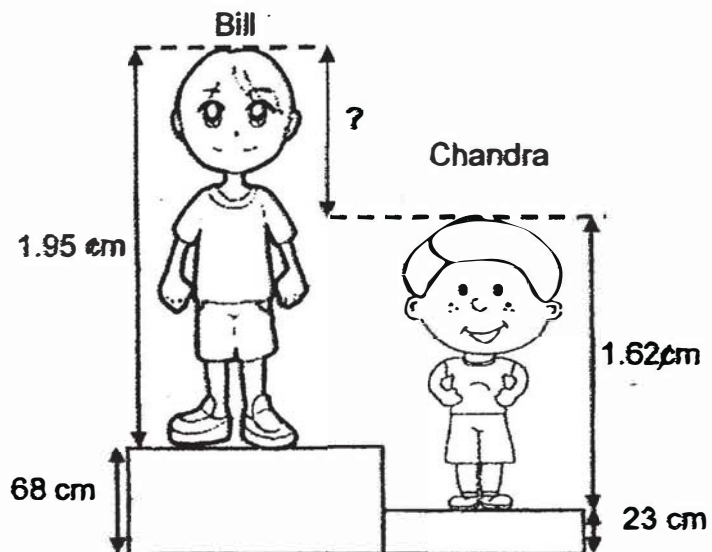
- (1) 530 000
- (2) 538 000
- (3) 539 000
- (4) 540 000

2. The mass of a sack of potatoes is 5.45 kg. Find the mass of 30 such sacks of potatoes.

- (1) 16.35 kg
- (2) 54.5 kg
- (3) 163.5 kg
- (4) 545 kg

3. Bill and Chandra are standing on the podium. What is the distance between the top of Bill's head and the top of Chandra's head?

- (1) 33 cm
- (2) 45 cm
- (3) 78 cm
- (4) 91 cm



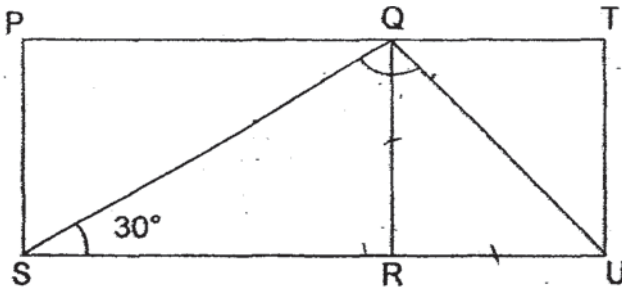
(Go on to the next page)

4. The table shows the total number of cars sold by Mr Tan, a car dealer, from January to April.

Month	No. of cars sold
Jan	0
Feb	17
Mar	29
Apr	62

What was his average number of cars sold per month?

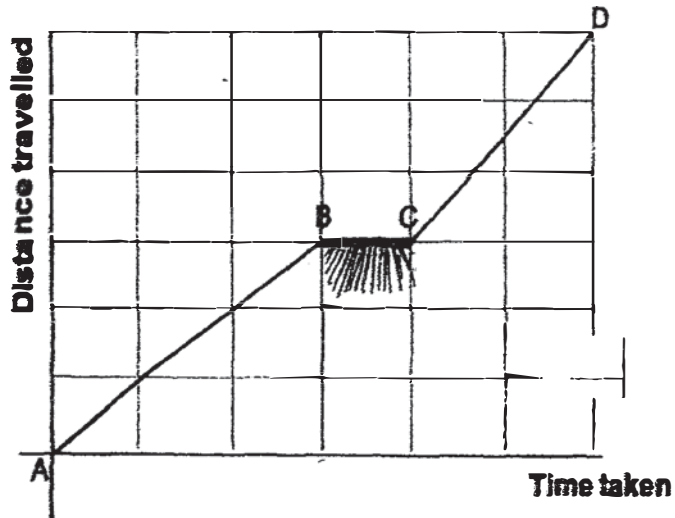
- (1) 23  
 (2) 27  
 (3) 36  
 (4) 108
5. In the figure below, PQRS is a rectangle and QTUR is a square. PQT and SRU are straight lines. Find  $\angle SQU$ .



- (1)  $45^\circ$   
 (2)  $60^\circ$   
 (3)  $90^\circ$   
 (4)  $105^\circ$

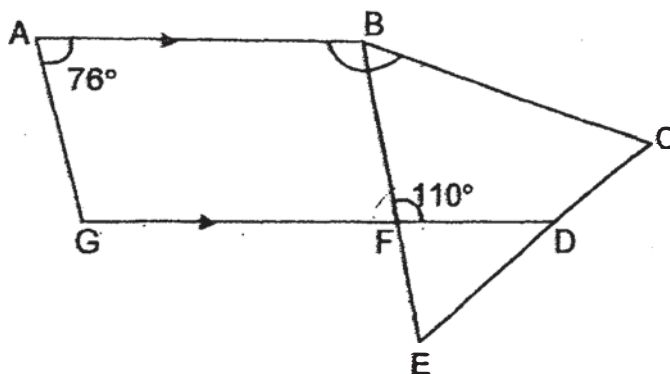
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6. The distance-time graph shows the journey taken by Mr Lim from Town A to Town D. Which statement describes the graph?



- (1) He travelled at the same speed from Point B to Point C.
- (2) He travelled at the same speed from Point A to Point D.
- (3) His speed from Point A to Point B is faster than his speed from Point C to Point D.
- (4) His speed from Point A to Point B is slower than his speed from Point C to Point D.

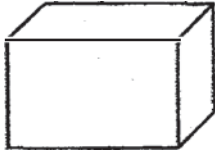
7. In the diagram below, ABFG is a trapezium and BCE is an equilateral triangle.  $AB \parallel GF$  and GFD is a straight line. Find  $\angle ABC$ .



- (1)  $104^\circ$
- (2)  $164^\circ$
- (3)  $170^\circ$
- (4)  $186^\circ$

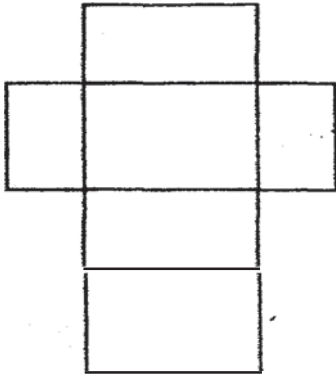
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8.

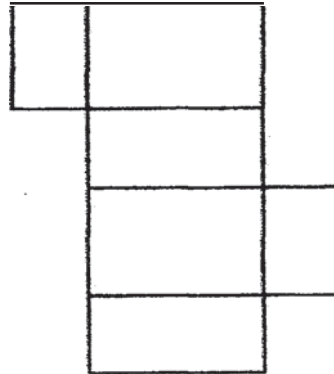


Which one of these figures could not be a net of the cuboid?

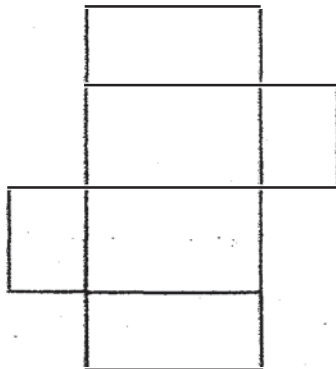
(1)



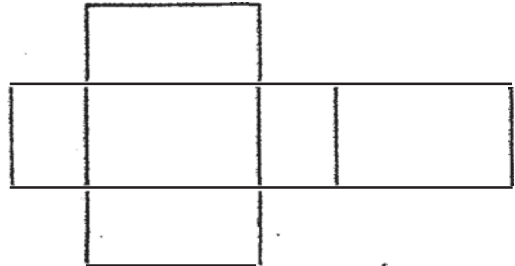
(2)



(3)



(4)



9. Simplify  $9y + 7 - 5y + y - 3 + 2$ .

(1)  $3y + 2$

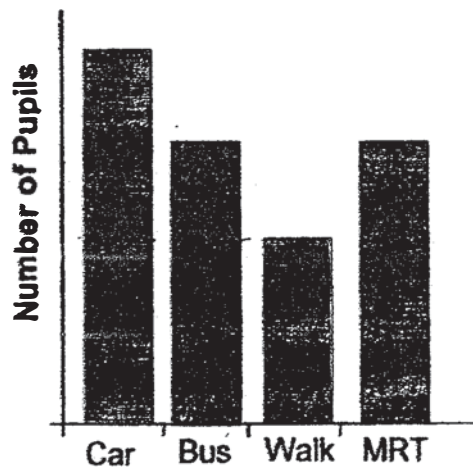
(2)  $3y + 6$

(3)  $5y + 2$

(4)  $5y + 6$

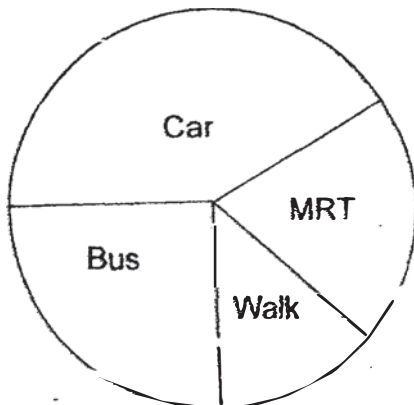
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10. The bar graph shows how pupils of Champion Primary School went to school on a certain day.

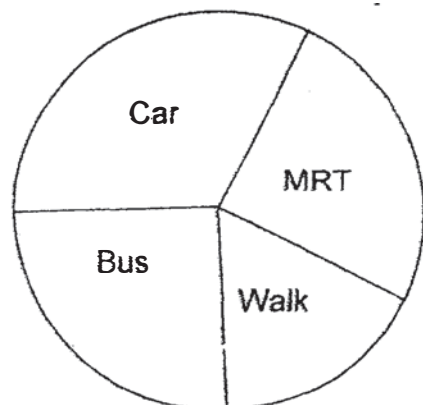


Which pie chart represents the information given in the bar graph?

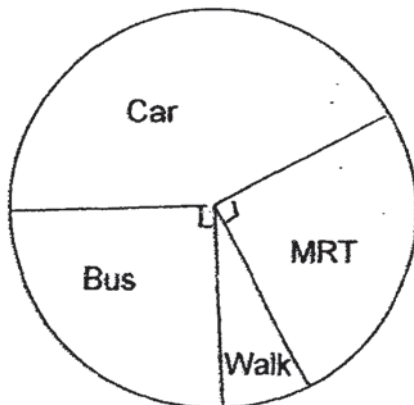
(1)



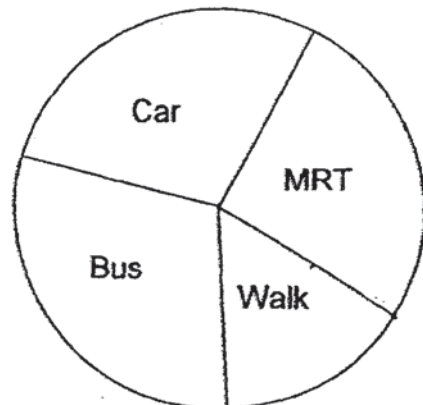
(2)



(3)



(4)



(Go on to the next page)

11. Mr Tan bought a total of 300 red and black beads in separate boxes. All the boxes of red beads had the same number of beads. All the boxes of black beads had 70 beads in each box. Which one of the following could not be the number of red beads in a box?

- (1) 30
- (2) 32
- (3) 36
- (4) 45

12. In a box,  $\frac{4}{9}$  of the fruits are apples and the rest are pears.  $\frac{2}{3}$  of the apples are red and the rest are green. There are 24 green apples. How many pears are there in the box?

- (1) 40
- (2) 72
- (3) 90
- (4) 162

13. Lee Min donated 30% of her savings and still had \$210 of her savings left. How much money did she donate?

- (1) \$63
- (2) \$90
- (3) \$120
- (4) \$147

(Go on to the next page)

14. The letter  $x$  represents a number between 4 and 6. Which of the following algebraic expression has the largest value?

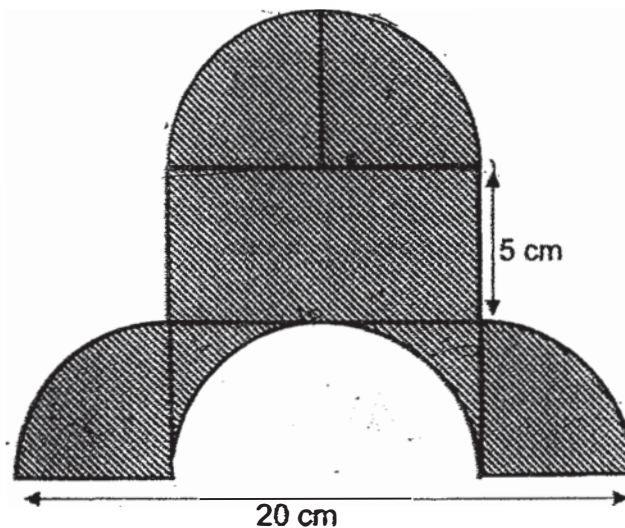
(1)  $\frac{x+6}{x}$

(2)  $\frac{x+6}{6}$

(3)  $\frac{6-x}{x}$

(4)  $\frac{6-x}{6}$

15.



The figure above is formed by of 4 identical quarter circles, 1 semicircle and 1 rectangle. Find the area of the shaded figure.

Leave your answer in terms of  $\pi$ .

(1)  $(12\frac{1}{2}\pi + 100) \text{ cm}^2$

(2)  $(25\pi + 50) \text{ cm}^2$

(3)  $(25\pi + 150) \text{ cm}^2$

(4)  $(50\pi + 50) \text{ cm}^2$

(Go on to Booklet B)



# METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887



## PRELIMINARY EXAMINATION 2018 PRIMARY 6 MATHEMATICS

### PAPER 1 (BOOKLET B)

Total Time for Booklets A and B : 1 hour

#### INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of calculators is not allowed.

Name: \_\_\_\_\_ (    )

Class: Primary 6. \_\_\_\_\_

Date: 2 August 2018

Parent's Signature: \_\_\_\_\_

<b>Paper 1 Booklet A</b>	<b>/ 20</b>
<b>Paper 1 Booklet B</b>	<b>/ 25</b>
<b>Paper 2</b>	<b>/ 55</b>
<b>TOTAL</b>	<b>/ 100</b>

This booklet consists of 9 printed pages including this page

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated.

(5 marks)

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16. Find the value of  $15.3 - 9.04$ .

Ans : \_\_\_\_\_

17. Find the value of  $147 \times 80$ .

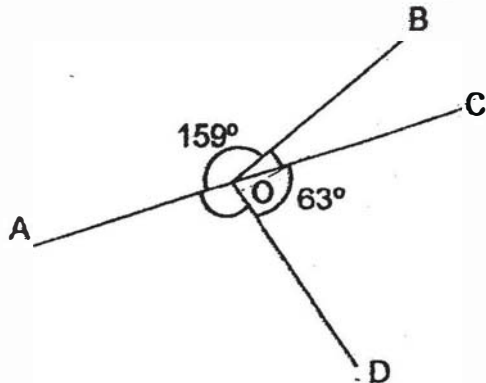
Ans : \_\_\_\_\_

18.  $a : b = 7 : 4$  and  $b : c = 6 : 7$  What is the ratio of  $a : c$ ?  
Give your answer in the simplest form.

Ans : \_\_\_\_\_

(Go on to the next page)

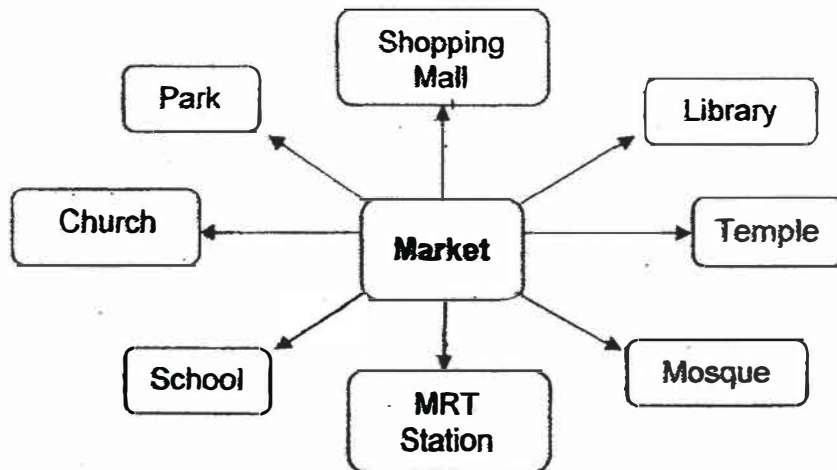
19. In the figure below, AOC is a straight line.  $\angle AOB = 159^\circ$  and  $\angle COD = 63^\circ$ . What is the sum of  $\angle AOD$  and  $\angle BOC$ ?



Ans : \_\_\_\_\_

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20. Mrs Lim was at the market. After she turned  $225^\circ$  anti-clockwise, she is now facing the park. Where was she facing at first?



Ans : \_\_\_\_\_

(Go on to the next page)

Questions 20 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

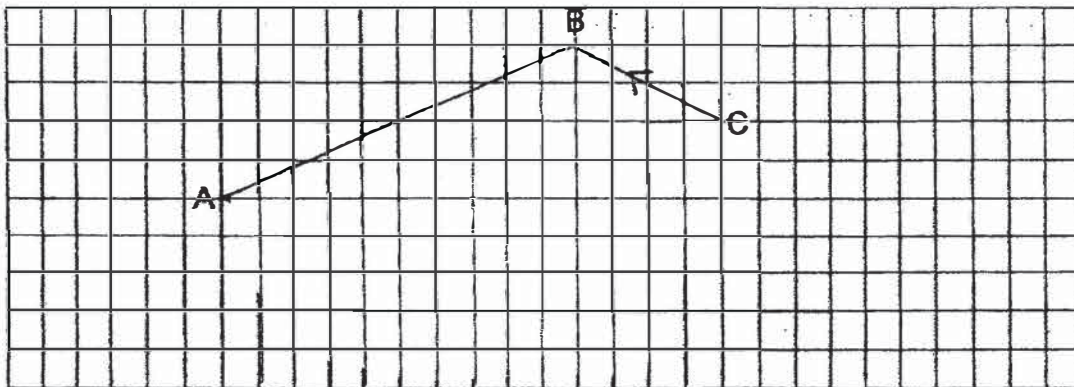
(20 marks)

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21. Eileen prepared  $\frac{6}{7}$  litres of apple juice for some friends. She poured the juice into cups of  $\frac{1}{5}$  litres each. How much apple juice was left? Give your answer as a fraction in the simplest form.

Ans : \_\_\_\_\_ l

22. AB and BC are two sides of a trapezium.  $BC \parallel AD$  and the length of BC and AD are in the ratio of 2:3. Complete the trapezium by drawing the other two sides in the square grid and label it. Measure the length of CD.

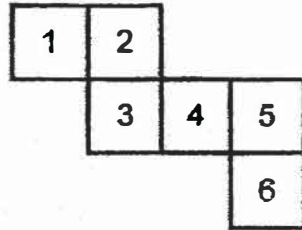


Ans: CD = \_\_\_\_\_ cm

(Go on to the next page)

23. The diagram shows the net of a cube. The cube is placed with Face "2" at the bottom of the cube. Which face is at the top of the cube?

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Ans : Face \_\_\_\_\_

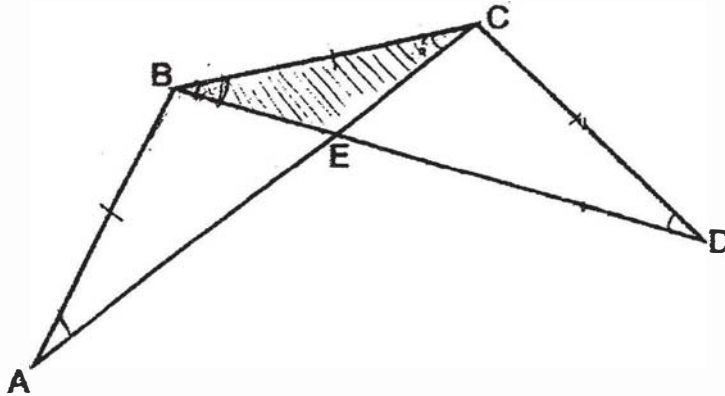
24. Janette took 15 minutes to cycle from her house to the library. She travelled 850 m. Find Janette's speed in km/h.

Ans : \_\_\_\_\_ km/h

(Go on to the next page)

25. In the figure below, AEC and BED are straight lines.  $AB = BC = CD$ .

Do not write  
in this space



Each statement below is true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

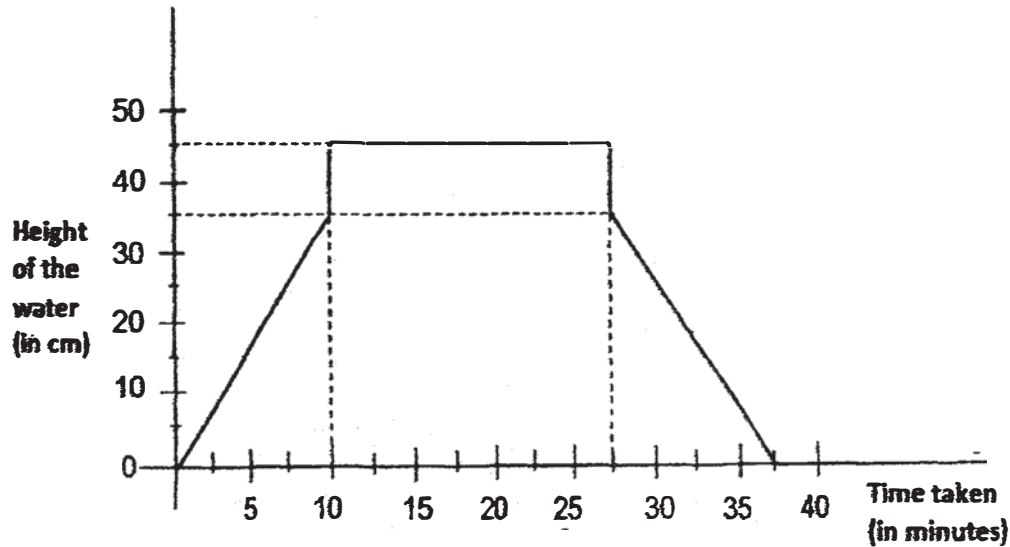
Statement	True	False	Impossible to Tell
Area of Figure ABCDE = Area of $\triangle ABC$ + Area of $\triangle BCD$ - Area of $\triangle BCE$			
$\angle BAC = \angle CDB$			



(Go on to the next page)

26. The graph below shows the height of water in a bathtub at different times of Sally's bathing activity. The height of the bathtub was 50 cm. She switched on the tap to fill the bathtub. She switched off the tap and stepped into the tub. After her bath, she stepped out of the bathtub and drained the water.

Do not write  
in this space



- (a) What fraction of the height of the bathtub was filled with water when Sally switched off the tap? Give your answer in the simplest form.
- (b) How long did Sally stay in the bathtub?

Ans : (a) \_\_\_\_\_

(b) \_\_\_\_\_ min



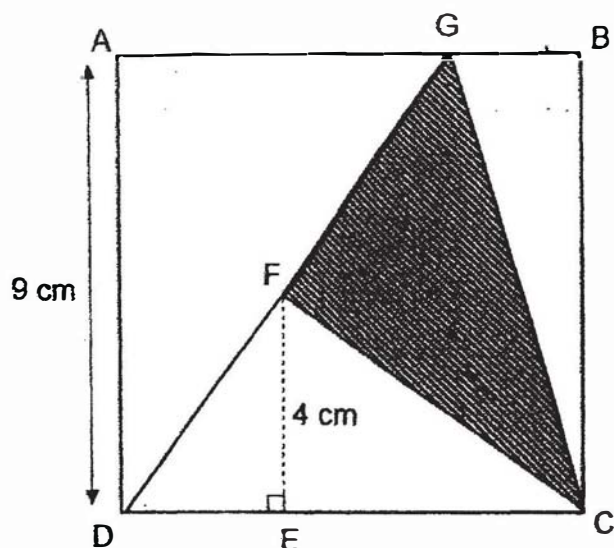
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- 27 The pupils in a room are divided equally into Group A and Group B. The ratio of the number of boys to the number of girls in Group A is 2 : 3 and in Group B is 1 : 2. What is the ratio of the total number of girls to the total number of pupils in the room?

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in this space

Ans : \_\_\_\_\_

- 28 The figure below is formed by a square ABCD and a triangle DGC. AD = 9 cm, EF = 4 cm and FC is a straight line. Find the area of the shaded part.



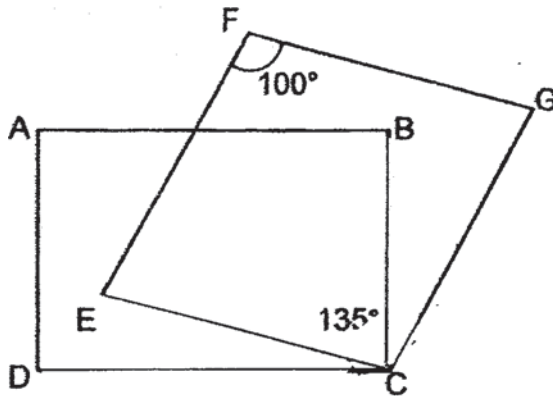
Ans : \_\_\_\_\_ cm<sup>2</sup>

(Go on to the next page)



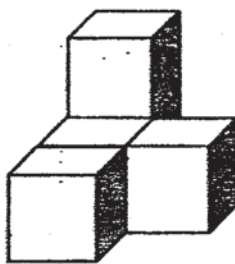
29. In the figure, ABCD is a rectangle and CEFG is a rhombus.  $\angle EFG = 100^\circ$  and  $\angle DCG = 135^\circ$ . Find  $\angle BCE$ .

Do not write  
in this space



Ans:

30. The solid below is made up of 5 identical cubes. The solid has a volume of  $40 \text{ cm}^3$ . How many more cubes have to be added to the solid to form a bigger cube with a volume of  $216 \text{ cm}^3$ .



Ans : \_\_\_\_\_

End of Paper

# METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887



## PRELIMINARY EXAMINATION 2018 PRIMARY 6 MATHEMATICS

### PAPER 2

Duration: 1h 30 min

#### INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

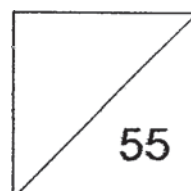
The use of an approved calculator is expected, where appropriate.

Name: \_\_\_\_\_ (    )

Class: Primary 6. \_\_\_\_\_

Date: 2 Aug 2018

Parent's Signature : \_\_\_\_\_



This booklet consists of 13 printed pages including this page.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write  
in this space

- 1 The table below shows the number of television sets owned per flat in a housing estate.

Number of television sets owned per flat	1	2	3	4
Number of flats	135	540	297	108

- (a) How many television sets are owned by the flats in the housing estate?  
(b) What percentage of flats owned at least two television sets?

Ans : (a) \_\_\_\_\_ [1]

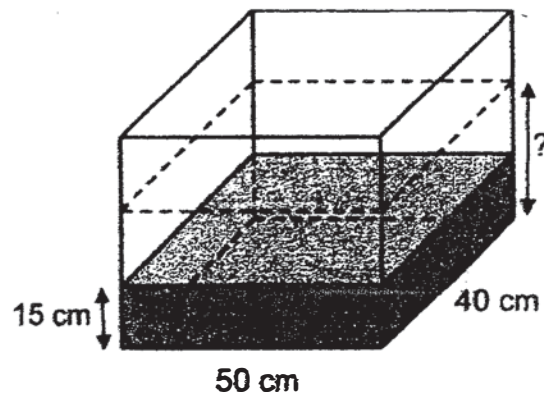
(b) \_\_\_\_\_ [1]



(Go on to the next page)

- 2 A rectangular tank 50 cm long and 40 cm wide was filled partially with water. 12 litres of water were poured out of the tank. The height of the water became 15 cm. What was the height of the water at first?

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space



Ans : \_\_\_\_\_ cm

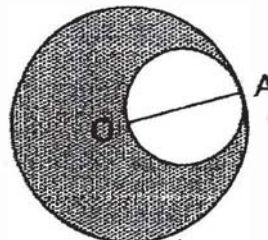
- 3 Nazri had some marbles. He gave  $\frac{2}{5}$  of them to his classmates and  $\frac{1}{3}$  of the remainder to his brother. He then had 38 marbles left. How many marbles did he give to his brother?

Ans : \_\_\_\_\_

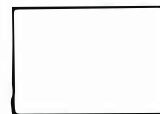
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- 4 O is the centre of the large circle and AO is the diameter of the small circle. The diameter of the large circle is 2 times the diameter of the small circle. The circumferences of the big and small circles meet each other at point A. The perimeter of the shaded figure is  $30\pi$  cm, what is the diameter of the small circle?

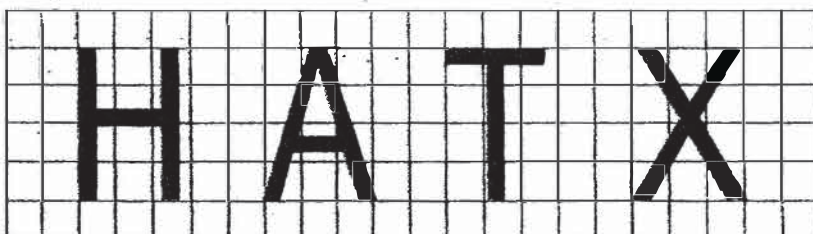
Do not write  
in this space



Ans : \_\_\_\_\_ cm



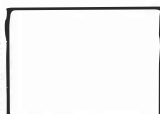
- 5 Look at the letters in the square grid below.



Write each letter once in the table below based on the description for each row or column.

	Have 1 line of symmetry	Have 2 lines of symmetry
Description		
Have perpendicular lines		
Have no perpendicular lines		

[2]



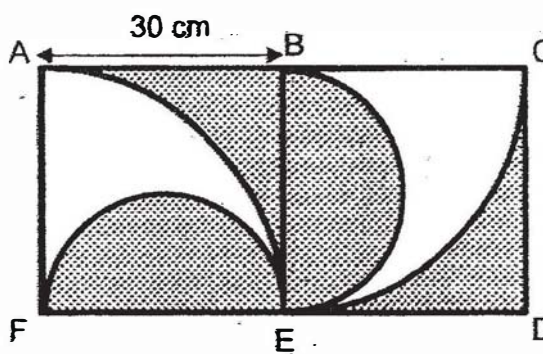
For Questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

Do not write  
in this space

- 6 Siti bought  $n$  notebooks and 3 times as many files. She paid a total of \$160 for the notebooks and files. The notebooks cost \$25 more than the files. If  $n = 5$ , what was the cost of each file?

Ans: \_\_\_\_\_ [3]

- 7 The shaded figure below is formed by semicircles, quarter circles and squares. ABEF is a square. What is the area of the shaded region? ( $\pi = 3.14$ )

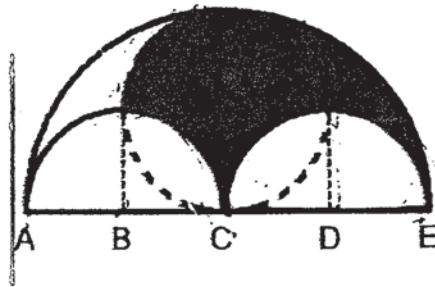


Ans: \_\_\_\_\_ [3]

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- 8 The figure shows three semicircles and a circle.  $AB = BC = CD = DE = 5$  cm, find the perimeter of the shaded part. Give your answer in 2 decimal places.

Do not write  
in this space



Ans: \_\_\_\_\_ [3]

- 9 Every time Mei Ling saves 60 cents, her mother puts another 30 cents into her savings. When Mei Ling had \$25.20 in her savings, how much of it had been put in by her mother?

Ans: \_\_\_\_\_ [3]

- 10 Peter set off from Town A towards Town B at 7.00 a.m. at a constant speed of 70 km/h. John set off from Town A towards Town B at 8.30 a.m. at a constant speed of 90 km/h. At what time did John manage to catch up with Peter on the road?

Do not write  
in this space

Ans: \_\_\_\_\_ [3]

- 11 A group of children shared 533 stamps among themselves.  $\frac{1}{2}$  of them received 4 stamps each,  $\frac{5}{12}$  of them received 3 stamps each and the rest received 2 stamps each. How many children were there?

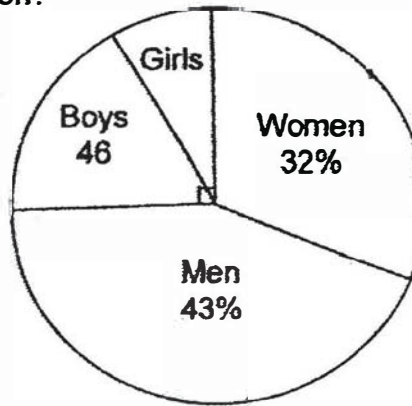
Ans: \_\_\_\_\_ [4]

(Go on to the next page)



- 12 The pie chart below shows the percentage of people who visited an exhibition. 25% of the people were children. There were 46 boys. There were 88 more women than girls.

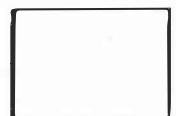
- (a) How many men were there?  
(b) How many people visited the exhibition?



Do not write  
in this space

Ans : (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [1]

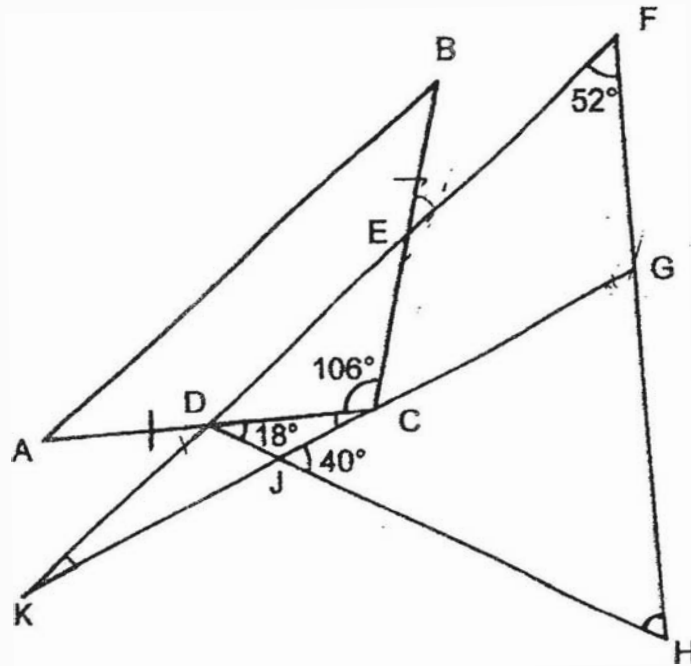


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- 13 The figure below shows three overlapping triangles. ABC is an isosceles triangle and  $AB \parallel FK$ .  $\angle ACB = 106^\circ$ ,  $\angle CDH = 18^\circ$ ,  $\angle KFH = 52^\circ$  and  $\angle GJH = 40^\circ$ . Find

(a)  $\angle FHD$ .

(b)  $\angle FKG$ .



Do not write  
in this space

Ans : (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [1]



- 14 The total height of 3 men was 5.01 m. A fourth man joined the group and the average height decreased by 0.08 m. A fifth man joined the group and the average height then increased by 0.06 m.

Do not write  
in this space

- (a) What was the average height of the first three men?  
(b) What was the height of the fifth man?

Ans : (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

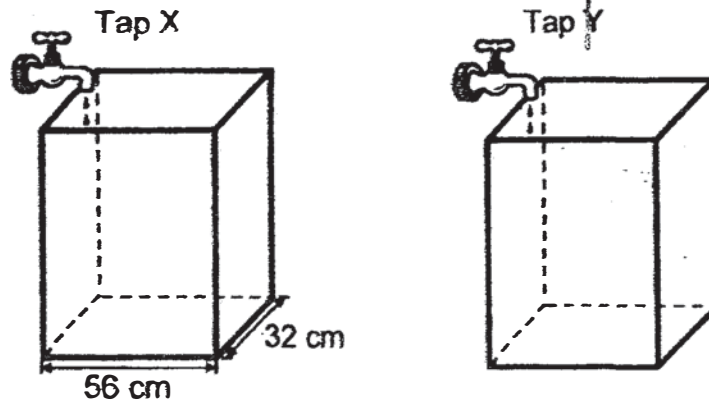


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- 15 The figure below shows 2 identical tanks. Water from Tap X flowed at a rate of 2.8 litres per minute while water from Tap Y flowed at a rate of 3.2 litres per minute. Tap X was turned on at 10 a.m. Tap Y was turned on 2 minutes later. The taps were turned off at the same time when the water level in the 2 tanks reached the same height.

Do not write  
in this space

- (a) At what time was the water level the same in both tanks?  
(b) What was the height of the water level in both tanks in the end?



Ans : (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]



- 16 The figures which are made up of shaded and unshaded squares follow a pattern as shown below.



Figure 1



Figure 2

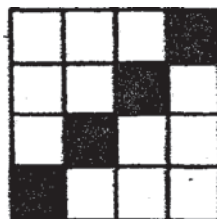


Figure 3

- (a) Find the number of shaded and unshaded squares in Figure 5.  
[1]

Figure Number	Number of shaded squares	Number of unshaded squares
1	2	2
2	3	6
3	4	12
4	5	20
5	i) _____	ii) _____

- (b) In which figure is there a total of 256 squares?  
(c) A figure in the pattern has a total of 529 shaded and unshaded squares. What is the number of shaded squares in the figure?

Ans: (b) \_\_\_\_\_ [1]

(c) \_\_\_\_\_ [2]

Do not write  
in this space



17

**Computer sale**

1<sup>st</sup> computer at 20% discount

2<sup>nd</sup> computer at 30% discount\*

\*Price of 2<sup>nd</sup> computer should be equal or lower than price of 1<sup>st</sup>

Do not write  
in this space

Mr Chan and Mr Tan each bought two computers during the Great Singapore Sale.

- (a) Mr Chan's computers were priced at \$1250 and \$2370, before 7% GST. How much did he pay in total, including GST?
- (b) Mr Tan paid a total of \$3445.40, including 7% GST. He paid \$449.40 more for the 1<sup>st</sup> computer than for the 2<sup>nd</sup> computer. What was the price of the 1<sup>st</sup> computer before discount?

Ans: (a) \_\_\_\_\_ [2]

Ans: (b) \_\_\_\_\_ [3]



**END OF PAPER**



# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : METHODIST GIRLS' SCHOOL (PRIMARY)  
 SUBJECT : MATHEMATICS  
 TERM : PRELIMINARY EXAM

## PAPER 1 BOOKLET A

Q1	4	Q2	3	Q3	3	Q4	2	Q5	4
Q6	4	Q7	3	Q8	3	Q9	4	Q10	2
Q11	3	Q12	3	Q13	2	Q14	1	Q15	1

## PAPER 1 BOOKLET B

Q16) 6.26

Q17) 11 760

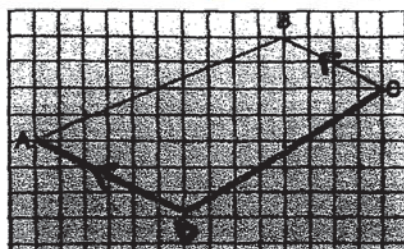
Q18) 3.2

Q19) 138°

Q20) MRT Station

Q21)  $\frac{2}{35}$

Q22)



CD = 4.6 cm



Q23) Face 6

Q24) 3.4 km/h

Q25) Area of Figure ABCDE: True

$\angle BAC = \angle CDB$  : Impossible to tell

Q26a)  $\frac{7}{10}$

Q26b) 17.5 min

Q27) 19:30

Q28) 22.5 cm<sup>2</sup>

Q29) 55°

Q30) 22

PAPER 2

Q1a)  $540 \times 2 = 1080$

$297 \times 3 = 891$

$108 \times 4 = 432$

$1080 + 891 + 432 + 135 = 2538$

Q1b)  $540 + 297 + 108 = 945$

$945 + 135 = 1080$

$\frac{945}{1080} \times 100 = 87.5\%$

Q2) 12 litres = 12 000 cm<sup>3</sup>

$12\,000\text{cm}^3 \div (50\text{cm} \times 40\text{cm}) = 6\text{cm}$

$15\text{cm} + 6\text{cm} = \underline{21\text{cm}}$

Q3)  $1 - \frac{2}{5} = \frac{3}{5}$

$\frac{3}{5} = 3 \text{ units}$

$\frac{1}{3}$  of 3 units = 1 unit

$$2 \text{ units} = 38$$

$$1 \text{ unit} = 38 \div 2 \\ = \underline{19}$$

Q4) Perimeter of small circle =  $\pi d$

$$\text{Perimeter of big circle} = \pi + 2d = 2\pi d$$

$$\text{Total perimeter of figure} = \pi d + 2\pi d \\ = 3\pi d = 30\pi$$

$$d = 10\text{cm}$$

Description	Have 1 line of symmetry	Have 2 lines of symmetry
Have perpendicular lines	T	H
Have no perpendicular lines	A	X

Q6)  $160 - 25 = 135$

$$135 \div 2 = 67.50$$

$$3n \text{ files} = 67.50$$

$$1 \text{ file} = 67.50 \div 3n$$

$$1 \text{ file} = 67.50 \div 15$$

$$= \underline{\$4.50}$$

Q7) Area of rectangle :  $30 \times 60 = 1800\text{cm}^2$

$$\text{Area of semicircle} : \frac{1}{2} \times 30 \times 30 \times 3.14 = 141\text{cm}^2$$

$$1800\text{cm}^2 - 141\text{cm}^2 = 387\text{cm}^2$$

$$\text{Area of circle} : 15 \times 15 \times 3.14 = 706.5\text{cm}^2$$

$$706.5\text{cm}^2 + 387\text{cm}^2 = \underline{1093.5\text{cm}^2}$$

Q8) Circumference of Semi:  $10 \times 3.142 \times \frac{1}{2} = 15.71$

Circumference of quarter:  $15.71 \div 2 = 7.855$

Circumference of big quarter:  $20 \times 3.142 \times \frac{1}{4} = 15.71$

$15.71 + 7.855 + 7.855 + 15.71 = \underline{47.13\text{cm}}$

Q9)  $0.60 + 0.30 = 0.90$

$25.20 \div 0.90 = 28$

$28 \times 0.30 = \underline{\$8.40}$

Q10) In 1.5h Peter travelled : 105km

$90 - 70 = 20$

$105 \div 20 = 5.25\text{h}$

$= 5 \text{ hours } 15\text{mins}$

$8.30\text{am} + 5 \text{ hours } 15\text{mins} = \underline{1.45\text{pm}}$

Q11)  $\frac{1}{2} = \frac{6}{12}$

$\frac{6}{12} = 4 \text{ stamps each}$

$\frac{5}{12} = 3 \text{ stamps each}$

$\frac{1}{12} = 2 \text{ stamps each}$

$6u \times 4 = 24$

$5u \times 3 = 15$

$1u \times 2 = 2$

Total: 41

$533 = 41u$

$1u = 533 \div 41$

$= 13$

$12u = 13 \times 12$

$= \underline{156}$

Q12a)  $32\% - 88 + 46 = 25\%$

$42 \rightarrow 7\%$

$6 \rightarrow 1\%$

$258 \rightarrow 43\%$

Total men: 258

Q12b)  $100\% \rightarrow \underline{600}$

Q13a)  $\angle BEF = \angle CBA$

$= (180^\circ - 106^\circ) \div 2$

$= 37^\circ$

$\angle BEF = \angle DEC$

$= 37^\circ$

$\angle CDE = 180^\circ - 37^\circ - 106^\circ$

$= 37^\circ$

$37 + 18 = 55^\circ$

$\angle FHD = 180^\circ - 52^\circ - 55^\circ$

$= \underline{73^\circ}$

Q13b)  $\angle JGH = 180 - 73 = 40$

$= 67^\circ$

$\angle FGK = 113^\circ$

$\angle EKG = 180 - 113 - 52$

$= \underline{15^\circ}$

Q14a)  $5.01 \div 3 = \underline{1.67m}$

Q14b)  $1.67 - 0.08 = 1.59$

$1.59 \times 4 = 6.36$

$1.59 + 0.06 = 1.65$

$1.65 \times 5 = 8.25$

$8.25 - 6.36 = \underline{1.89m}$

Q15a)  $3.2 - 2.8 = 0.4$

$2.8 \times 2 = 5.6 \text{ litres}$

$5.6 \div 0.4 = 14$

$14 + 2 = 16 \text{ min}$

$10 \text{ am} + 16 \text{ mins} = \underline{10.16 \text{ am}}$

Q15b)  $2.8 \times 16 = 44.8$

$44800 \div 56 \div 32 = \underline{25\text{cm}}$

Q16a) i  $\rightarrow 6$

ii  $\rightarrow 30$

Q16b)  $\sqrt{256} = 16$

$16 - 1 = \text{Figure 15}$

Q16c)  $\sqrt{529} = 23$

$23 - 1 = 22$

$22 + 1 = \underline{23}$

Q17a)  $(80\% \times 2370) \times 1.07 = 2028.72$

$(70\% \times 1250) \times 1.07 = 936.25$

Total  $\rightarrow 2028.72 + 936.25$

$= \underline{\$2964.97}$

Q17b)  $107\% \rightarrow 3445.40 - 449.40$

$= 2996$

$100\% \rightarrow 2800 (2 \text{ com})$

$1^{\text{st}} \text{ com} \rightarrow 1400 + 420$

$= 1820$

$80\% \rightarrow 1820$

$100\% \rightarrow \underline{\$2275}$

END





NANYANG PRIMARY SCHOOL

**PRELIMINARY EXAMINATION  
2018**

**PRIMARY 6**

**MATHEMATICS  
PAPER 1  
(BOOKLET A)**

Total Duration for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

**INSTRUCTIONS TO PUPILS**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculators is **NOT** allowed.

Name: \_\_\_\_\_ (       )

Class: Primary 6       )





Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer  
Sheet. (20 marks)

---

1 Round 1789 to the nearest hundred.

(1) 1700

(2) 1790

(3) 1800

(4) 2000

2 Which digit in 31.902 is in the tenths place?

(1) 1

(2) 0

(3) 3

(4) 9

- 3 In the number line below, what is the value of A?



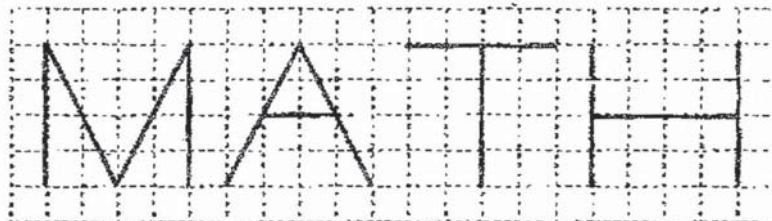
- (1) 0.50
  - (2) 0.55
  - (3) 0.60
  - (4) 0.65
- 4 Find the value of  $18 - 2p + 2 \times 3p$  when  $p = 4$ .

- (1) 34
- (2) 2
- (3) 96
- (4) 144

5 Which one of the following is likely to be the length of a school bus?

- (1) 1.2 m
- (2) 12 m
- (3) 120 m
- (4) 1200 m

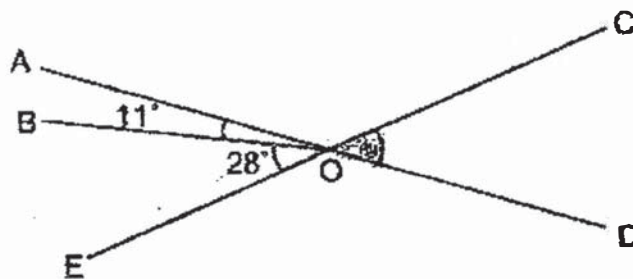
6 In the diagram below, the letters M, A, T and H are drawn on a square grid.



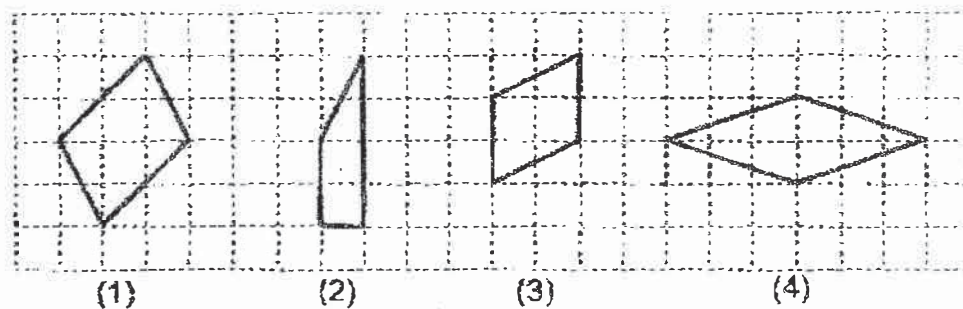
Which letter has both parallel lines and perpendicular lines?

- (1) M
- (2) A
- (3) T
- (4) H

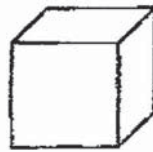
- 7 In the figure below, AOD and COE are straight lines.  $\angle AOB = 11^\circ$  and  $\angle BOE = 28^\circ$ . Find  $\angle COD$ .



- (1)  $17^\circ$   
 (2)  $28^\circ$   
 (3)  $39^\circ$   
 (4)  $141^\circ$
- 8 In the square grid below, which shape is a rhombus?

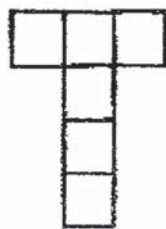


- 9 The figure below shows a cube.

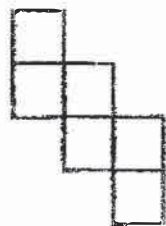


Which of the following is **not** a net of the cube?

(1)



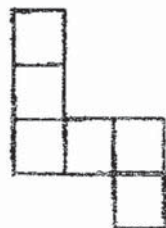
(2)



(3)



(4)

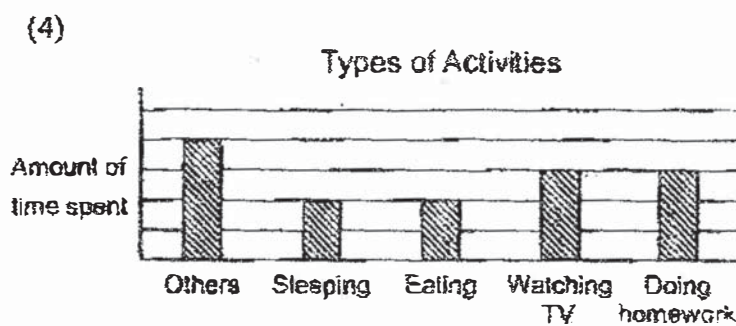
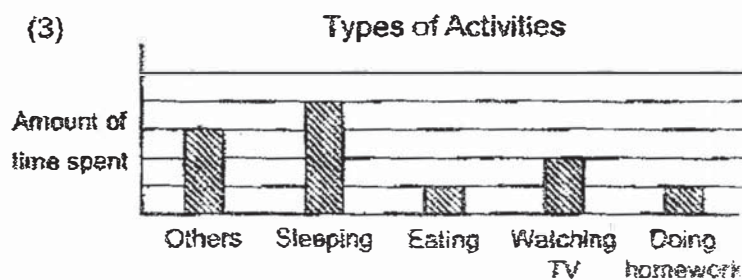
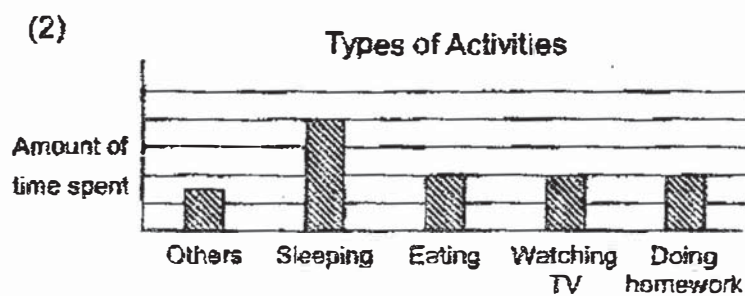
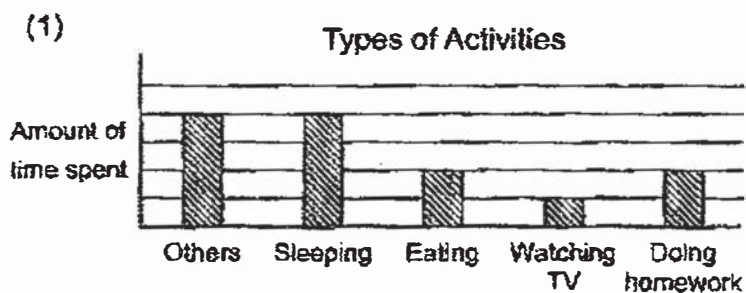


- 10 The pie chart below shows how Joseph spent his time on a Saturday.



Refer to question and options on the next page.

He spent an equal amount of time on eating and doing homework.  
Which bar graph best represents the information in the pie chart?



- 11 Arrange the following fractions from the largest to the smallest.

$$\frac{2}{7}, \quad \frac{1}{5}, \quad \frac{4}{9}, \quad \frac{2}{11}$$

Largest

Smallest

(1)  $\frac{1}{5}, \quad \frac{2}{7}, \quad \frac{4}{9}, \quad \frac{2}{11}$

(2)  $\frac{2}{11}, \quad \frac{1}{5}, \quad \frac{2}{7}, \quad \frac{4}{9}$

(3)  $\frac{4}{9}, \quad \frac{2}{11}, \quad \frac{2}{7}, \quad \frac{1}{5}$

(4)  $\frac{4}{9}, \quad \frac{2}{7}, \quad \frac{1}{5}, \quad \frac{2}{11}$

- 12 Brian and Charles had some stickers. At first, the number of stickers Brian had was  $\frac{4}{7}$  of the total number of stickers. Then, Brian sold  $\frac{3}{8}$  of his stickers. Find the ratio of the number of stickers Brian had at the end to the number of stickers Charles had at the end.

(1) 1 : 3

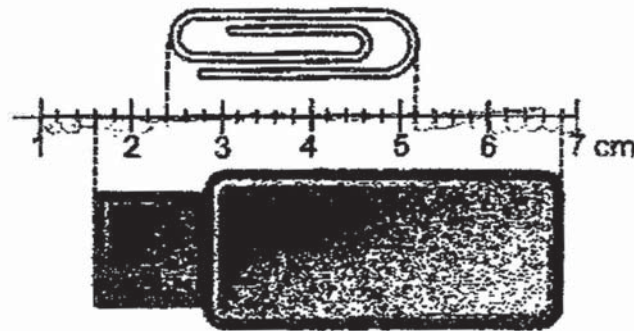
(2) 1 : 7

(3) 5 : 6

(4) 5 : 14

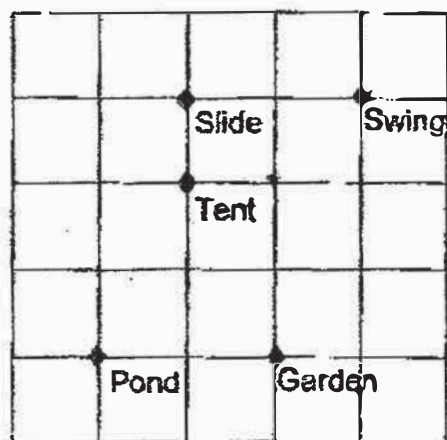


- 13 A thumb drive and a paper clip are placed next to a scale. Find the difference in their lengths.



- (1) 1.2 cm
- (2) 1.6 cm
- (3) 2.2 cm
- (4) 2.4 cm

- 14 The square grid below shows the map of a park and its landmarks. The slide is north of the tent.



Suresh is standing at a location north of the garden and south-west of the swing. He is facing the pond. Which landmark will he be facing when he turns  $45^\circ$  clockwise?

- (1) Tent
- (2) Slide
- (3) Swing
- (4) Garden

- 15** A and B are whole numbers. A has exactly 2 factors. B has exactly 4 factors. C is the product of A and B. At least how many factors does C have?

(1) 5

(2) 6

(3) 8

(4) 4



NANYANG PRIMARY SCHOOL

**PRELIMINARY EXAMINATION  
2018**

**PRIMARY 6**

**MATHEMATICS  
PAPER 1  
(BOOKLET B)**

Total Duration for Booklets A and B: 1 hour

**INSTRUCTIONS TO PUPILS**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of calculators is **NOT** allowed.

Name: \_\_\_\_\_

Class: Primary 6 (       )

**Booklet B**

**/ 25**

Any query on marks awarded should be raised by 17 September (Monday). We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

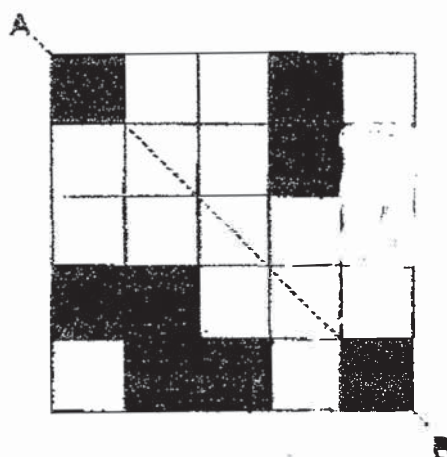
- 16 Ze Hui had 24 marbles at first. He gave 6 marbles to his brother. What fraction of his marbles did he give to his brother? Express your answer as a fraction in its simplest form.

Ans: \_\_\_\_\_

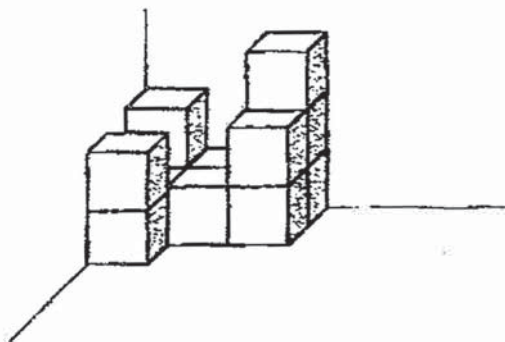
- 17 The distance between two points is 267 cm. Express this distance in metres.

Ans: \_\_\_\_\_ m

- 18 There are 8 shaded squares in the figure below. Shade 2 more squares to form a symmetric figure with AB as the line of symmetry.



- 19 The figure below is made up of identical cubes. How many cubes are there in the figure?



Ans: \_\_\_\_\_

- 20 In which of the following can the area of the shaded face of the cuboid be found?

<p>Volume = <math>100 \text{ cm}^3</math></p> <p>5 cm</p> <p>Area = ?</p> <p>Cuboid A</p>	<p>Volume = <math>240 \text{ cm}^3</math></p> <p>6 cm</p> <p>Area = ?</p> <p>Cuboid B</p>	<p>Volume = <math>400 \text{ cm}^3</math></p> <p>Area = ?</p> <p>8 cm</p> <p>Cuboid C</p>
---	---	---

Ans: Cuboid \_\_\_\_\_

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

---

- 21 How many common factors do 16 and 20 have?

Ans: \_\_\_\_\_

---

- 22 Jane has \$31.70. She has \$0.50 less than Bala. Mr Tan has 10 times as much money as Jane.

- (a) How much money does Bala have?  
(b) How much money does Mr Tan have?

Ans: (a) \$ \_\_\_\_\_

(b) \$ \_\_\_\_\_

---

- 23 This year, ABC Sports Club had 150 members. Last year, it had 120 members. Find the percentage increase in the number of members this year.

Ans: \_\_\_\_\_ %

---

- 24 The table below shows the carpark charges for a shopping mall.

CARPARK CHARGES	
7 a.m. to 6 p.m.	\$0.60 for every 30 min

Mr Raj parked his car from 8.30 a.m. to 12 noon in the shopping mall.  
How much did he pay?

Ans: \$ \_\_\_\_\_

- 
- 25 Jerry had 110 buns. He ate 2 buns and packed the remaining buns equally into 6 packets. How many buns were there in each packet?

Ans: \_\_\_\_\_

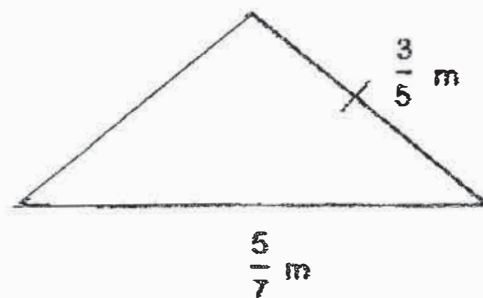


- 26 Mrs Tay baked some cupcakes.  $\frac{1}{4}$  of the cupcakes that she had baked were vanilla cupcakes,  $\frac{1}{5}$  of the remaining cupcakes were lychee cupcakes and the rest were chocolate cupcakes. She baked 36 chocolate cupcakes. How many cupcakes did she bake in total?

Ans: \_\_\_\_\_

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- 27 Find the perimeter of the isosceles triangle shown below.



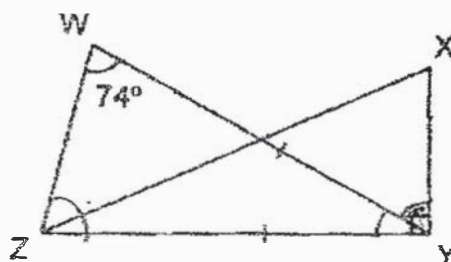
Ans: \_\_\_\_\_ m

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- 28 Jake has \$ $y$ . Kyra has  $\$(y + 14)$  more than Jake. Kyra has \$68. How much money does Jake have?

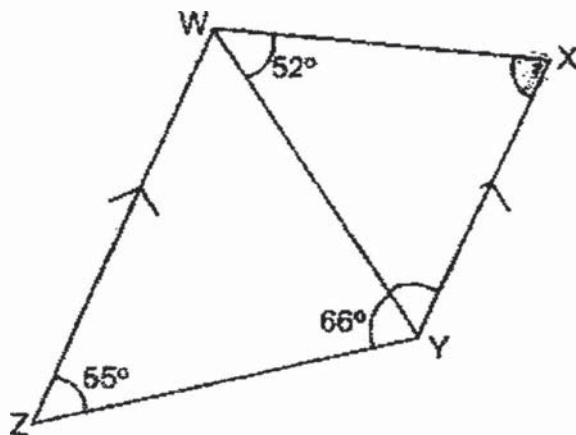
Ans: \$ \_\_\_\_\_

- 29 In the figure below,  $WZY$  and  $XYZ$  are triangles.  $\angle YWZ = 74^\circ$ ,  $\angle XYZ = 90^\circ$  and  $WY = YZ$ . Find  $\angle WYX$ .



Ans: \_\_\_\_\_ °

- 30 In the figure below,  $WXYZ$  is a trapezium.  $WZ$  is parallel to  $XY$ .  $\angle XWY = 52^\circ$ ,  $\angle WYZ = 66^\circ$  and  $\angle WZY = 55^\circ$ . Find  $\angle WXY$ .



Ans: \_\_\_\_\_ °

End of Paper



NANYANG PRIMARY SCHOOL

**PRELIMINARY EXAMINATION  
2018**

**PRIMARY 6**

**MATHEMATICS  
PAPER 2**

Duration: 1 hour 30 minutes

**INSTRUCTIONS TO PUPILS**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of an approved calculator is expected, where appropriate.

Name: \_\_\_\_\_ (       )

Class: Primary 6 (       )

Parent's Signature: \_\_\_\_\_

Booklet A	/ 20
Booklet B	/ 25
Paper 2	/ 55
Total	/ 100

Any query on marks awarded should be raised by 17 September (Monday). We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

- 1 Farid had  $(4k + 6)$  pencils. He bought another  $k$  pencils and packed all the pencils equally into 3 boxes. How many pencils were there in each box? Give your answer in terms of  $k$  in the simplest form.

Ans: \_\_\_\_\_

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- 2 A bicycle cost \$617.10 after a discount of 15%. What was the price of the bicycle before the discount?

Ans: \_\_\_\_\_

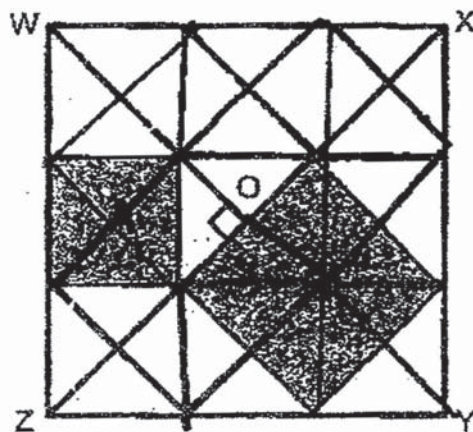
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- 3 A tank is empty at first. It takes 12 minutes to fill up the tank completely with Tap A alone. It takes 8 minutes to fill up the tank completely with Tap B alone. Starting with an empty tank, how long does it take for both taps together to fill half of the tank?

Ans: \_\_\_\_\_ min

---

- 4 In the figure below,  $WXYZ$  is a square. The shaded parts A and B are two squares with different areas. All the corners of squares A and B lie either on the sides of square  $WXYZ$  or on the lines  $WO$  and  $XZ$ . What fraction of the square  $WXYZ$  is shaded?



Ans: \_\_\_\_\_

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- 5 A, B and C are different 2-digit numbers. Their average is 30. Find the greatest possible difference between B and C.

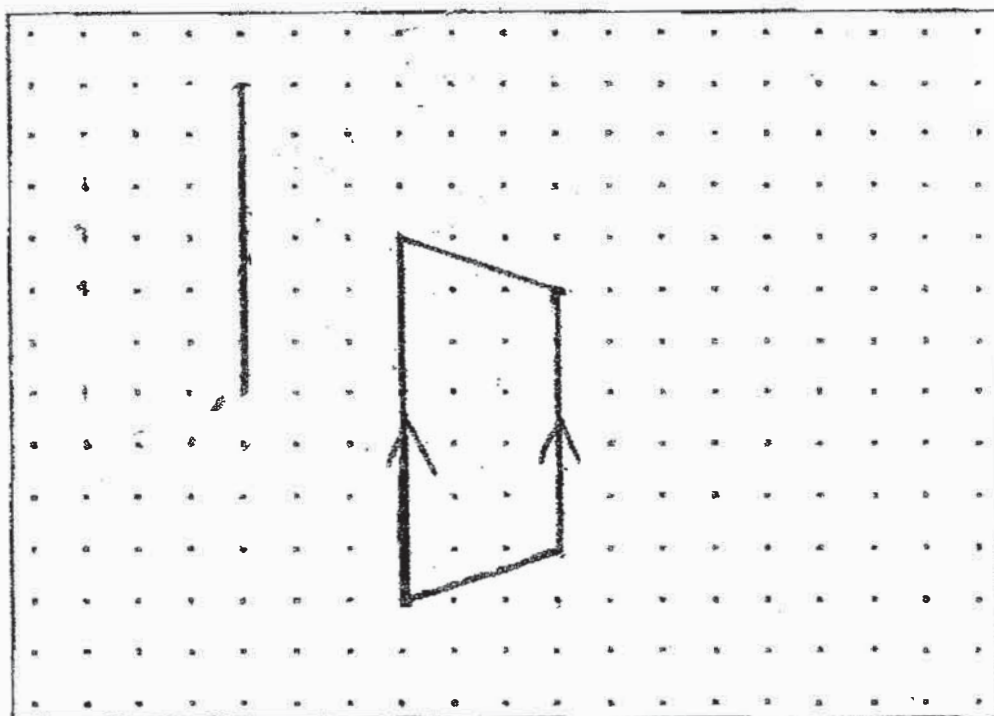
Ans: \_\_\_\_\_

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For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

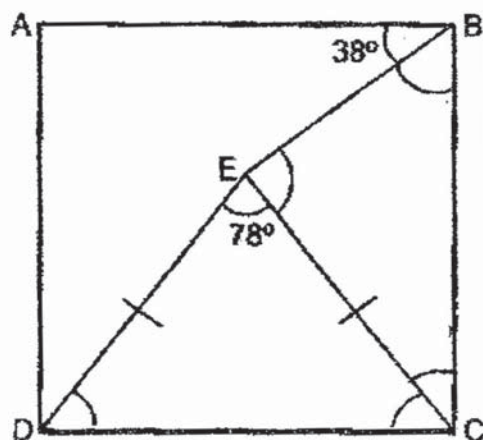
- 6 In the square grid below, two sides of a parallelogram have been drawn. Each side is drawn by joining dots on the square grid with a straight line. In the same way,

- complete the drawing of the parallelogram and [1]
- draw a trapezium in the square grid with the same perimeter as the parallelogram such that it does not overlap with the parallelogram. [1]
- Measure and write down the size of an obtuse angle in the parallelogram.



Ans: (c) \_\_\_\_\_ [1]

- 7 In the figure below, ABCD is a square and ECD is an isosceles triangle.  $\angle DEC = 78^\circ$  and  $\angle ABE = 38^\circ$ . Find  $\angle BEC$ .



Ans: \_\_\_\_\_ [3]

- 8 Mr Lee has a total of 36 coins. They consist of only 20-cent, 50-cent and \$1 coins. He has twice as many \$1 coins as 20-cent coins. The total value of the 50-cent coins is \$4.40 more than the total value of the 20-cent coins. How many \$1 coins does Mr Lee have?

Ans: \_\_\_\_\_ [3]



- 9 Town P was exactly halfway between Town M and Town N. At 08 00, Nancy started travelling from Town M to Town N while Seo Joon started travelling from Town N to Town M. Nancy travelled at 50 m/min while Seo Joon travelled at 80 m/min. They did not change their speeds throughout the journey. When they passed each other, their distance from Town P was 120 m. At what time did Seo Joon reach Town M?

Ans: \_\_\_\_\_ [3]

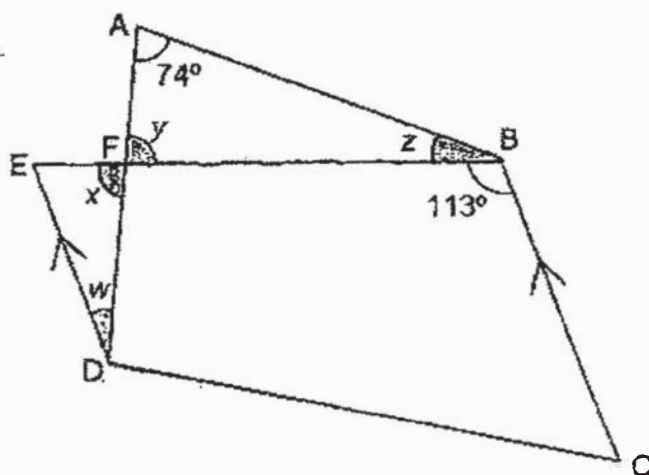
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- 10 Ashley and Wei Shen have the mass of 43.3 kg each. The mass of Bernadette is 1.8 kg less than the average mass of Ashley, Wei Shen and Bernadette. Find the total mass of Ashley, Wei Shen and Bernadette.

Ans: \_\_\_\_\_ [3]

---

- 11 In the figure below, EBCD is a trapezium. ED is parallel to BC.  $\angle FAB = 74^\circ$  and  $\angle EBC = 113^\circ$ . Find the sum of  $\angle w$ ,  $\angle x$ ,  $\angle y$  and  $\angle z$ .



Ans: \_\_\_\_\_ [3]

- 12 Mdm Ler, Mr Chan and Mdm Ng bought some blue and some yellow highlighters. Each blue highlighter cost \$0.30 more than each yellow highlighter. The table below shows number of highlighters each of them bought for each colour.

	Number of blue highlighters bought	Number of yellow highlighters bought
Mdm Ler	10	17
Mr Chan	7	20
Mdm Ng	12	15

- (a) Mdm Ng spent an equal amount of money on the blue highlighters and on the yellow highlighters. How much did each blue highlighter cost?
- (b) Find the difference between Mdm Ler's total spending on the highlighters and Mr Chan's total spending on the highlighters.

Ans: (a) \_\_\_\_\_ [2]

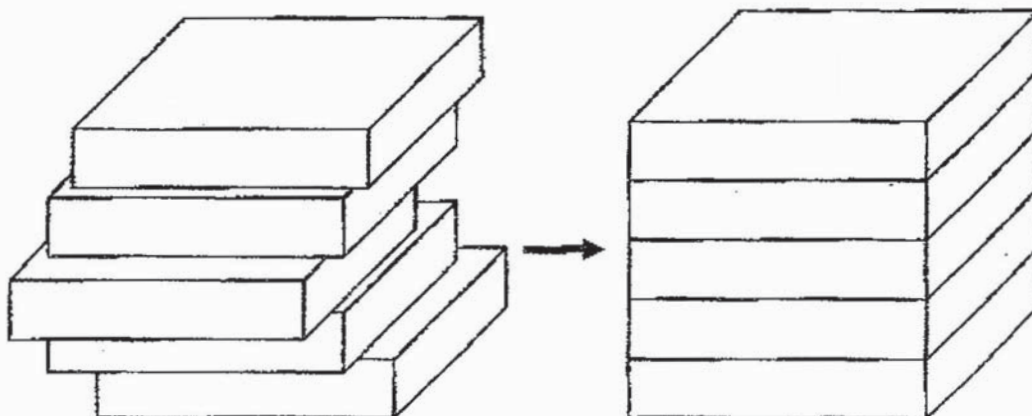
(b) \_\_\_\_\_ [2]

- 13 At a florist, there was a total of 3616 orchids, tulips and roses. The ratio of the number of orchids to the number of tulips was 3 : 5. After 40% of the orchids,  $\frac{1}{5}$  of the tulips and 25% of the roses were sold, there were 2644 flowers left in the end. How many orchids were there in the florist at first?

Ans: \_\_\_\_\_ [4]

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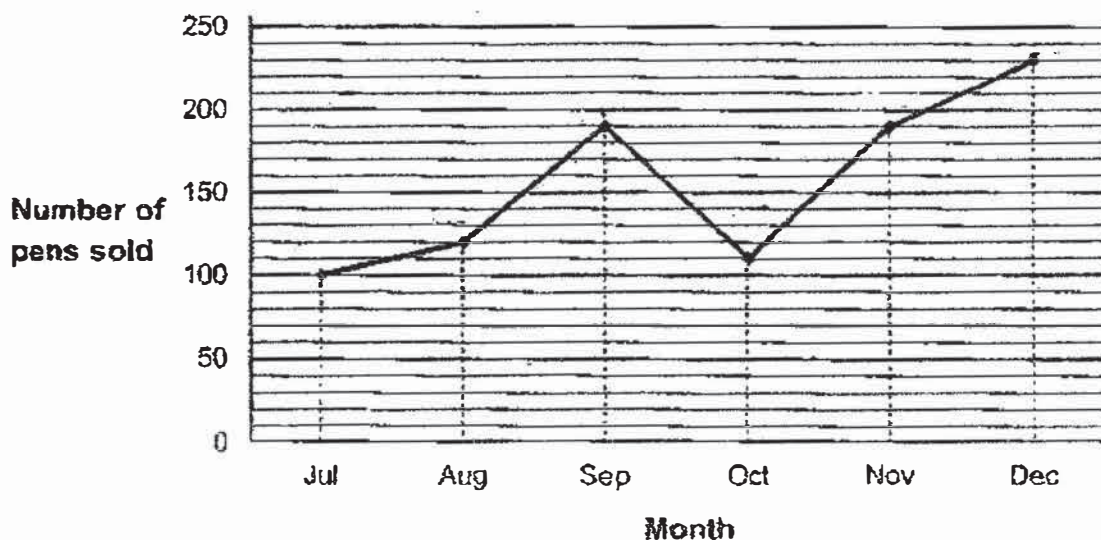
- 14 Jonathan had five identical cuboids. The volume of each cuboid is  $675 \text{ cm}^3$ . He stacked the five cuboids on top of one another neatly to form a big cube as shown below.



He then took one of the five cuboids and dipped it into a pail of red paint. Find the area of the cuboid that was painted red.

Ans: \_\_\_\_\_ [4]

- 15 The line graph below shows the number of pens sold in a bookstore each month from July to December in 2017.



- (a) In which two months were the number of pens sold the same?
- (b) Find the total number of pens sold from August to November.
- (c) Each statement below is either true, false or not possible to tell from the information given in the line graph. For each statement, put a (✓) in the correct column.

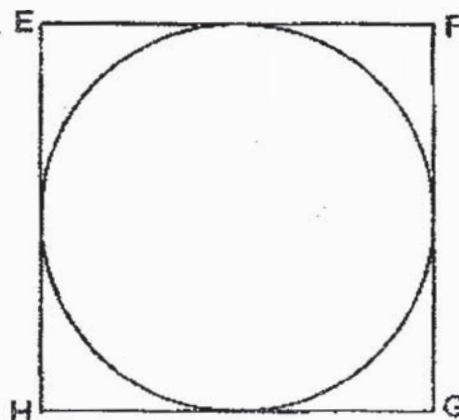
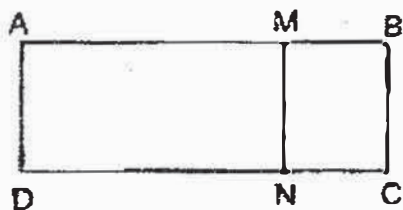
Statement	True	False	Not Possible to Tell
The increase in the number of pens sold from June to July was less than the increase in the number of pens sold from August to September.			
The number of pens sold in July was three times the number of pens sold in May.			

[2]

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

- 16 The perimeter of rectangle ABCD is 12 cm more than that of rectangle AMND. The area of rectangle MBCN is  $54 \text{ cm}^2$ .



- (a) Find the length of AD.
- (b) The perimeter of square EFGH is 12 times the length of AD.  
Use the calculator value of  $\pi$  to find the area of the circle which touches the 4 sides of square EFGH, correct to 1 decimal place.

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]

- 17 Rectangular tanks A and B contained some water. The height of the water level in tank A was equal to that in tank B at first. Tank A had a base area of  $3400 \text{ cm}^2$  and Tank B had a base area of  $850 \text{ cm}^2$ .  $8600 \text{ cm}^3$  of water was poured out from Tank B and the height of the water level decreased by 40% in Tank B. Some water was added into Tank A and the height of the water level increased by 80% in Tank A.
- (a) Find the total amount of water in the two tanks in the end.
- (b) Some water was then transferred from Tank A to Tank B without spilling until the height of the water level in both tanks was the same again. What was the height of the new water level in each tank?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

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End of Paper





**EXAM PAPER 2018**

**LEVEL** : **PRIMARY 6**  
**SCHOOL** : **NANYANG PRIMARY SCHOOL**  
**SUBJECT** : **MATHEMATICS**  
**TERM** : **PRELIM**

**PAPER 1****BOOKLET A**

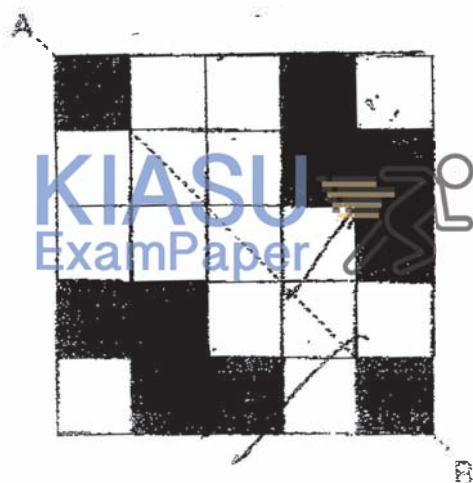
<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q5</b>	<b>Q6</b>	<b>Q7</b>
3	4	2	1	2	4	3
<b>Q8</b>	<b>Q9</b>	<b>Q10</b>	<b>Q11</b>	<b>Q12</b>	<b>Q13</b>	<b>Q14</b>
4	4	3	4	4	4	1
<b>Q15</b>						
2						

**BOOKLET B**

**Q16**  $\frac{6}{24} = \frac{1}{4}$   
**Ans:**  $\frac{1}{4}$

**Q17**  $267\text{cm} \approx 2.67\text{m}$   
**Ans:**  $2.67\text{m}$

**Q18.**



Q19. Ans: 12

Q20.  $240 \div 6 = 40$

Ans: Cuboid B

Q21.  $\frac{16}{1 \times 16}$        $\frac{20}{1 \times 20}$   
 $\frac{2 \times 8}{2 \times 8}$        $\frac{2 \times 10}{2 \times 10}$   
 $\frac{4 \times 4}{4 \times 4}$        $\frac{4 \times 5}{4 \times 5}$   
Ans: 3

Q22.  $\$31.70 + \$0.50 = \$32.20$

$\$31.70 \times 10 = \$317$

Ans: a) \$32.20

b) \$317

Q23.  $\frac{30}{120} \times 100 = 25$

$150 - 120 = 30$

Ans: 25%

Q24. 8:30am to 12am = 3hrs 30 mins

$7 \times \$0.60 = \$4.20$

Ans: \$4.20

Q25.  $110 - 2 = 108$

$108 \div 6 = 18$

Ans: 18

Q26.  $\frac{1}{4} = \frac{5}{20}$

$1 - \frac{1}{4} = \frac{3}{4}$

$3 \times 4 = 12$

$\frac{3}{4} = \frac{15}{20}$

$36 \div 12 = 3$

$\frac{15}{20} \div \frac{5}{20} = \frac{3}{4}$

$3 \times 20 = 60$

Ans: 60

KIASU  
ExamPaper 

$$\begin{aligned}
 \text{Q27. } \frac{3}{5} + \frac{5}{7} + \frac{3}{5} &= \frac{21}{35} + \frac{25}{35} + \frac{21}{35} \\
 &= \frac{67}{89} \\
 &= 1\frac{32}{35}
 \end{aligned}$$

Ans:  $1\frac{32}{35}$

$$\text{Q28. } \$y + \$ (y + 14) = \$ (2y + 14)$$

$$\$68 - \$14 = \$54$$

$$\$54 \div 2 = \$27$$

Ans: \$27

$$\text{Q29. } 180^\circ - 70^\circ - 70^\circ = 32^\circ$$

$$90^\circ - 32^\circ = 58^\circ$$

Ans:  $58^\circ$

$$\text{Q30. } 180^\circ - 55^\circ - 66^\circ = 59^\circ$$

$$59^\circ + 52^\circ = 111^\circ$$

$$180^\circ - 111^\circ = 69^\circ$$

Ans:  $69^\circ$



PAPER 2

Q1.  $(4k + 6) + k = (5k + 6)$

$$(5k + 6) \div 3 = \left(\frac{5k+6}{3}\right)$$

Ans:  $\left(\frac{5k+6}{3}\right)$

Q2.  $\$617.10 \div 85 = \$7.26$

$$\$7.26 \times 100 = \$726$$

Ans: \$726

Q3. In 1 minute,

Tap A fills  $\frac{1}{12}$  of the tank.

Tap B fills  $\frac{1}{8}$  of the tank.

Taps A and B fill  $\frac{5}{24}$  of the tank.

$$\text{Time taken} = \frac{1}{2} \div \frac{5}{24}$$

$$= \frac{1}{2} \times \frac{24}{5}$$

$$= 2.4 \text{ min}$$

Q4.  $4 \times 9 = 36$

$$\frac{8}{36} + \frac{4}{36} = \frac{12}{36}$$

$$= \frac{1}{3}$$

Ans:  $\frac{1}{3}$

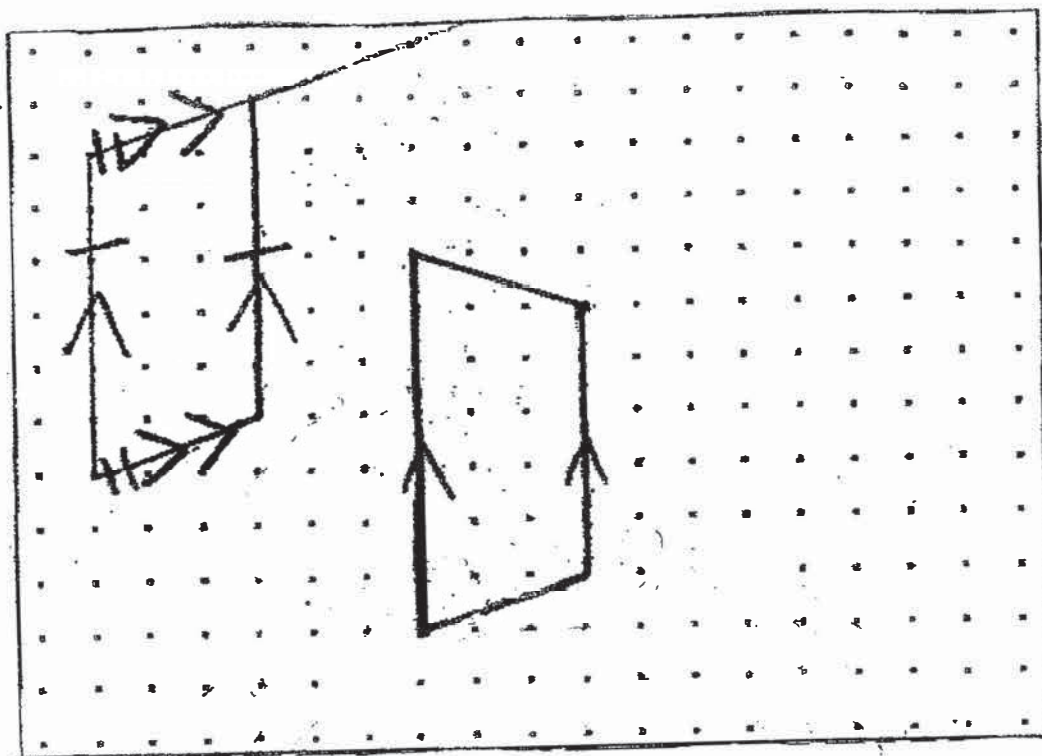
Q5.  $30 \times 3 = 90$

$$90 - 10 - 11 = 69$$

$$69 - 10 = 59$$

Ans: 59

Q6.

Ans: c)  $108^\circ$ 

Q7.

$$90^\circ - 38^\circ = 52^\circ$$

$$180^\circ - 78^\circ = 102^\circ$$

$$102^\circ \div 2 = 51^\circ$$

$$90^\circ - 51^\circ = 39^\circ$$

$$180^\circ - 39^\circ - 52^\circ = 89^\circ$$

Ans:  $89^\circ$ 

Q8.

No. of \$1 dollar coins	Total value	No. of 20-cent coins	Total value	No. of 50-cent coins	Total value	Difference in values of 20-cent coins and 50-cent coins	Check
6	\$6	18	\$3.60	27	\$13.50	\$12.90	x
12	\$12	6	\$1.20	18	\$9	\$7.80	x
16	\$16	8	\$1.60	12	\$6	\$4.40	✓

Ans: 16

Q9.

$$(120 \times 2) \div (80 - 50) = 8$$

$$8 \times (50 + 80) = 1040$$

$$1040 \div 80 = 13$$

Ans: 08 13

Q 10  $43.3 \times 2 = 86.6$

$$86.6 - 1.8 = 84.8$$

$$84.8 \div 2 = 42.4$$

$$42.4 \times 3 = 127.2$$

Q 11  $180^\circ - 74^\circ = 106^\circ (\angle y + \angle z)$

$$180^\circ - 113^\circ = 67^\circ$$

$$180^\circ - 67^\circ = 113^\circ (\angle x + \angle w)$$

$$113^\circ + 106^\circ = 219^\circ$$

Q 12 (a) Let the cost of the blue and yellow highlighter be  $1u$  and  $1y$  respectively,

$$1u - \$0.30 = 1y$$

$$12u = 15y$$

$$12u = 15(1u - \$0.30)$$

$$12u = 15u - \$4.50$$

$$3u = \$4.50$$

$$1u = \$1.50$$

$$(b) (\$1.50 \times 10) + (\$1.20 \times 17) = \$35.40$$

$$(\$1.50 \times 7) + (\$1.20 \times 20) = \$34.50$$

$$\$35.40 - \$34.50 = \$0.90$$

Q 13  $15u + 25u + 4p = 3616$

$$40u + 4p = 3616$$

$$120u + 12p = 10848$$

$$9u + 20u + 3p = 2644$$

$$29u + 3p = 2644$$

$$116u + 12p = 10576$$

$$120u - 116u = 4u$$

$$4u = 10848 - 10576$$

$$= 272$$

$$1u = 68$$

$$68 \times 15 = 1020$$

Q14.  $675 \times 5 = 3375$

$\sqrt[3]{3375} = 15$

$15 \div 5 = 3$

$675 \div 3 = 225$

$3 \times 15 = 45$

$45 \times 4 = 180$

$15 \times 15 = 225$

$225 \times 2 = 450$

$450 + 180 = 630$

Q15. (a) September and November

(b)  $120 + 190 + 110 + 190 = 610$

(c)

Statement	True	False	Not Possible to Tell
The increase in the number of pens sold from June to July was less than the increase in the number of pens sold from August to September.			✓
The number of pens sold in July was three times the number of pens sold in May.			

Q16. (a)  $12 \div 2 = 6$

$54 \div 6 = 9$

(b)  $9 \times 12 = 108$

$108 \div 4 = 27$

$27 \div 2 = 13.5$

$13.5 \times 13.5 = 182.25$

KIASU  
ExamPaper



Q17. (a) 40% of B = 8500

$$100\% \text{ of B} = (8500 \div 40) \times 100 \\ = 21250$$

$$60\% \text{ of B} = (8500 \div 40) \times 60 \\ = 12750$$

$$21250 \div 850 = 25$$

$$25 \times 3400 = 85000$$

$$85000 \div 100 \times 180 = 15300$$

$$12750 + 15300 = 28050$$

$$(b) 28050 \div (3400 + 850) = 39$$



END



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**MATHEMATICS**  
**PAPER 1**  
(BOOKLET A)

558

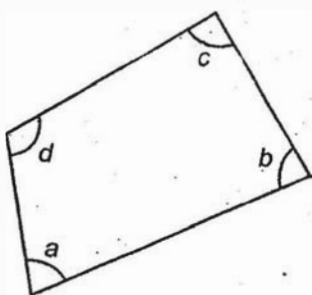
Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the  
Optical Answer Sheet. (20 marks)

1. Which of the following is eight hundred and five thousand and twenty-one in figures?
  - (1) 85 021
  - (2) 805 021
  - (3) 850 021
  - (4) 8 005 021
  
2. Round 299 542 to the nearest thousand.
  - (1) 290 000
  - (2) 299 500
  - (3) 300 000
  - (4) 300 542
  
3. What is the value of  $500 \times 80$ ?
  - (1) 40
  - (2) 400
  - (3) 4000
  - (4) 40 000
  
4. Which of the following is the same as 9.04 l?
  - (1) 904 cm<sup>3</sup>
  - (2) 9004 cm<sup>3</sup>
  - (3) 9040 cm<sup>3</sup>
  - (4) 9400 cm<sup>3</sup>

5. Which of the following is the smallest?

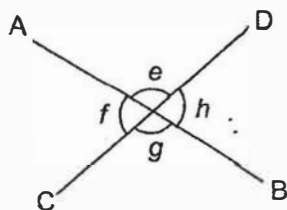
- (1) 0.6
- (2) 0.31
- (3) 0.079
- (4) 0.102

6. Which of the marked angles in the figure below is greater than a right angle?



- (1)  $\angle a$
- (2)  $\angle b$
- (3)  $\angle c$
- (4)  $\angle d$

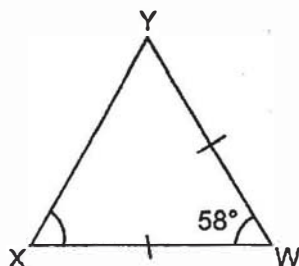
7. In the figure below, AB and CD are straight lines.



Which of the following statements is true?

- (1)  $\angle e = \angle g$
- (2)  $\angle f = \angle e$
- (3)  $\angle f + \angle h = 180^\circ$
- (4)  $\angle e + \angle g = 180^\circ$

8. The figure below shows an isosceles triangle  $WXY$ .  $\angle YWX = 58^\circ$ .

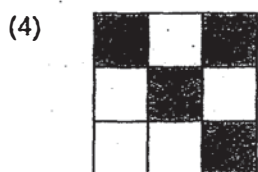


Find  $\angle WXY$ .

- (1)  $64^\circ$
  - (2)  $61^\circ$
  - (3)  $58^\circ$
  - (4)  $32^\circ$
9. Simplify the expression  $9y + 7 - 5y + 3$ .
- (1)  $14y + 4$
  - (2)  $4y - 10$
  - (3)  $4y + 4$
  - (4)  $4y + 10$
10. Express 4.2 as a percentage.

- (1) 4.2%
- (2) 42%
- (3) 420%
- (4) 4200%

11. Which of the following is **not** a symmetric figure?



12. Suzy had some apples.  $\frac{2}{5}$  of them were green and the rest were red. She sold all the green apples and  $\frac{1}{4}$  of the red apples. What fraction of the apples were sold?

(1)  $\frac{3}{20}$

(2)  $\frac{11}{20}$

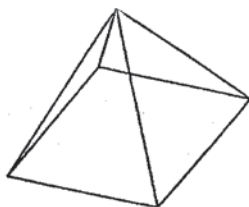
(3)  $\frac{13}{20}$

(4)  $\frac{14}{20}$

13. Mrs Yong wanted to pack 72 oranges and 96 apples into as many bags as possible with no remainder. She packed the same number of fruit in each bag. The number of apples in each bag was the same. How many oranges were there in each bag?

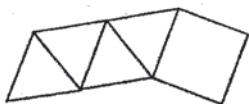
- (1) 24
- (2) 7
- (3) 3
- (4) 4

14. The figure below shows a pyramid.

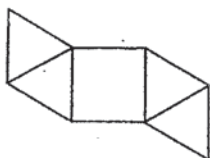


Which of the following is **not** a net of the pyramid?

(1)



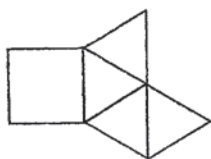
(2)



(3)



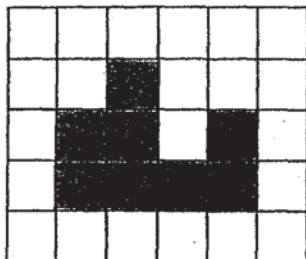
(4)



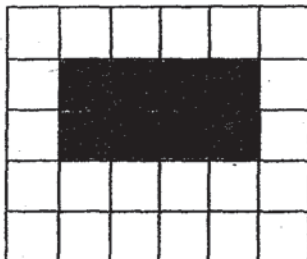


15. The diagrams below show three different views of a solid that is made up of 12 unit cubes.

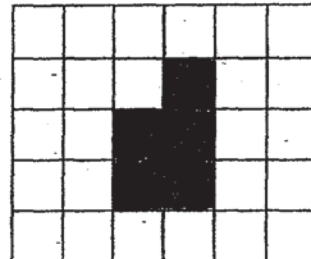
Front View



Top View

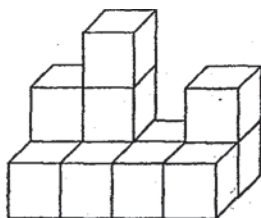


Side View

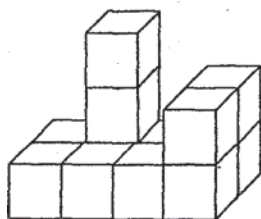


Which of the following solid matches the three views?

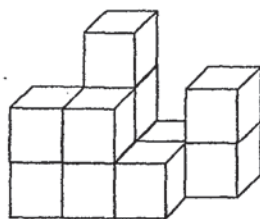
(1)



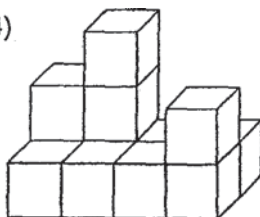
(2)



(3)



(4)



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)

Do not write  
in this space

16. What is the missing number in the box?

$$6 : 15 = \boxed{?} : 55$$

Answer: \_\_\_\_\_

17. Find the value of  $35 - 2 \times (3 + 4) + 6$ .

Answer: \_\_\_\_\_

18. Find the value of  $\frac{3}{7} \div 9$ .

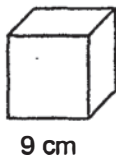
Answer: \_\_\_\_\_

19. Find the value of  $\frac{42 - 3y}{6} + 8$  when  $y = 4$ .

Answer: \_\_\_\_\_

SCORE

20. Find the volume of the cube shown below.



Answer: \_\_\_\_\_  $\text{cm}^3$

Do not write  
in this space

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

21. Find the value of

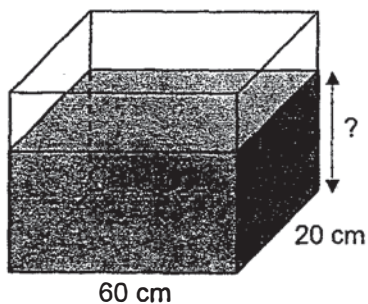
(a)  $20.7 \times 1000$

(b)  $8.06 \div 20$

Answer: (a) \_\_\_\_\_

(b) \_\_\_\_\_

22. The base of a rectangular container is 60 cm long and 20 cm wide. Peter poured  $36\,000\text{ cm}^3$  of water into the container. What is the height of the water level?

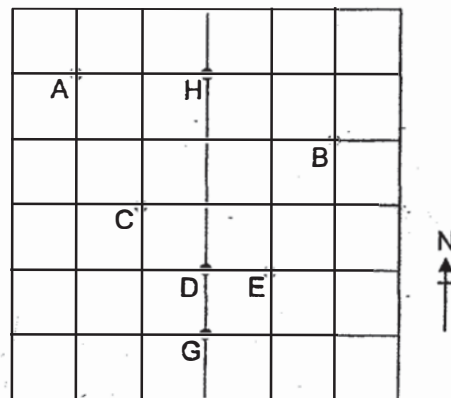


Answer: \_\_\_\_\_ cm

SCORE

23. Seven landmarks are shown in the square grid below.

Do not write  
in this space



- (a) In which direction is A from E?
- (b) A treasure is buried under one of the landmarks. The treasure is south of H and south-west of B. Under which landmark is the treasure buried?

Answer: (a) \_\_\_\_\_

(b) \_\_\_\_\_

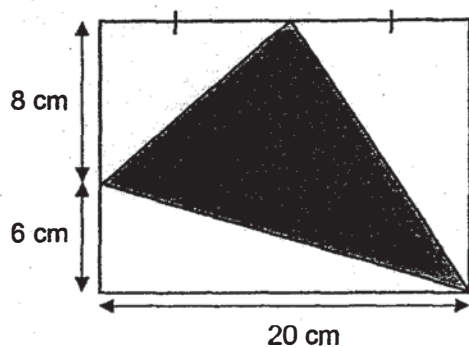
24. The ratio of the number of boys to the number of girls in a hall is 2 : 7. There are 180 children. Find the difference between the number of boys and the number of girls.

Answer: \_\_\_\_\_

SCORE

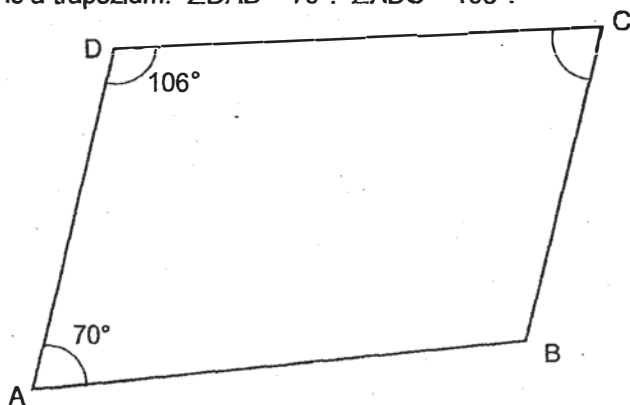
25. The figure below shows a rectangle and a triangle. What is the area of the shaded triangle?

Do not write  
in this space



Answer: \_\_\_\_\_  $\text{cm}^2$

26. ABCD is a trapezium.  $\angle DAB = 70^\circ$ .  $\angle ADC = 106^\circ$ .



- (a) Name the pair of parallel sides of the trapezium.  
(b) Find  $\angle BCD$ .

Answer: (a) \_\_\_\_\_

(b) \_\_\_\_\_  $^\circ$

SCORE

27. A table with 4 columns is filled with numbers in a certain pattern. The first 4 rows of the table are shown below.

Do not wr  
in this spe

	Column A	Column B	Column C	Column D
Row 1	1	2	3	4
Row 2	8	7	6	5
Row 3	9	10	11	12
Row 4	16	15	14	13
:	:	:	:	:

In which row and column will the number 295 appear?

Answer: Row: \_\_\_\_\_

Column: \_\_\_\_\_

28. One machine took 80 minutes while another took 100 minutes to print the same number of copies of a newsletter. In 80 minutes, the faster machine printed 360 more copies of the newsletter than the slower one. What was the total number of copies printed by the two machines?

Answer: \_\_\_\_\_

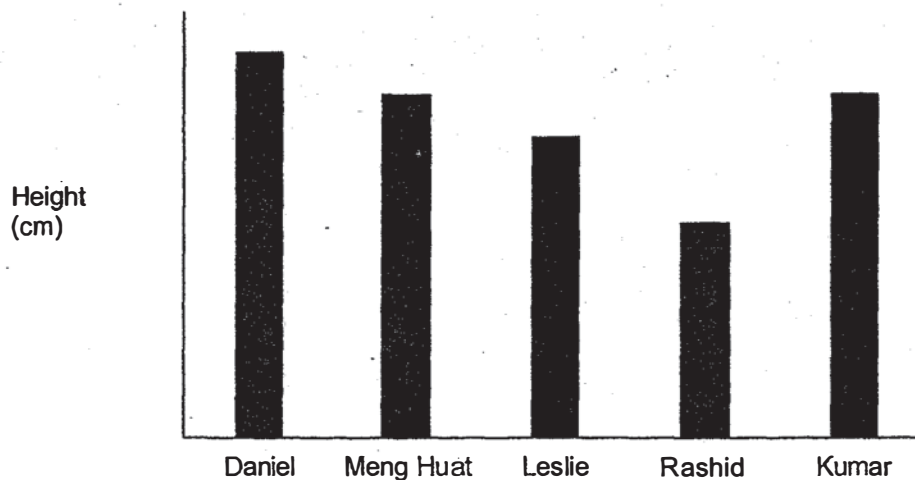
SCORE

29. Siva saves \$3 a day during weekdays and \$6 a day on Saturday and Sunday. He started saving on Friday, 8 June. How many days did he take to save \$69?

Do not write  
in this space

Answer: \_\_\_\_\_

30. The bar graph below shows the height of 5 boys.



Based on the information above, put a tick (✓) in the correct box.

	True	False	Not possible to tell
(a) Leslie's height is less than Rashid's height.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) The average height of the 5 boys is more than Rashid's height but less than Daniel's height.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

End of Paper

Set by : Mrs Agnes Chua, Mr Tan Keng Hock and Mr Stanley Soh

MA / P6 / PL / 2018

Page 6 of 6

SCORE

Index  
No. 

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**PEI CHUN PUBLIC SCHOOL**  
**PRELIMINARY EXAMINATION, 2018**

**MATHEMATICS**  
**PAPER 2**

Time: 1 h 30 min

Name : \_\_\_\_\_ (     )

Class : Primary 6 / \_\_\_\_\_

Date : 1 August 2018

Parent's Signature: \_\_\_\_\_

<b>Paper 1 (Booklet A)</b>	<b>20</b>
<b>Paper 1 (Booklet B)</b>	<b>25</b>
<b>Paper 2</b>	<b>55</b>
<b>TOTAL</b>	<b>100</b>

**INSTRUCTIONS TO CANDIDATES**

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

FOLLOW ALL INSTRUCTIONS CAREFULLY.

ANSWER ALL QUESTIONS.

SHOW YOUR WORKING CLEARLY AS MARKS ARE AWARDED FOR CORRECT WORKING.

WRITE YOUR ANSWERS IN THIS BOOKLET.

YOU ARE ALLOWED TO USE A CALCULATOR.



Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do n  
in thi

1. There are 4032 people at a concert hall.  $\frac{2}{7}$  of the people are females.  
How many females are there in the concert hall?

Answer: \_\_\_\_\_

2. The average height of 4 boys is 1.36 m. The height of one of the boys is 1.45 m.  
What is the average height of the other 3 boys?

Answer: \_\_\_\_\_ m

SCORE

3. There were 13 bookshelves each holding the same number of books. 1 bookshelf was removed and the books on the shelf were placed on the remaining 12 shelves. Because of this, the number of books on each remaining shelf increased by 8.  
What was the total number of books in the 13 bookshelves at first?

Do not write  
in this space

Answer: \_\_\_\_\_

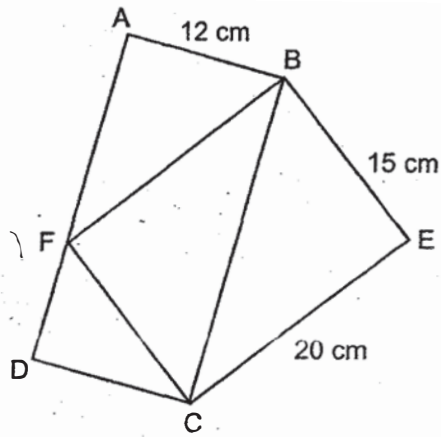
4. The breadth of a rectangle is  $b$  cm. The length of the rectangle is 3 times its breadth. What is the perimeter of the rectangle?  
Express your answer in terms of  $b$ .

Answer: \_\_\_\_\_ cm

SCORE

5. In the figure below, ABCD and BECF are rectangles. The length of CE is 20 cm, the length of BE is 15 cm and the length of AB is 12 cm. What is the length of AD?

Do not  
in this



Answer: \_\_\_\_\_ cm

SCORE

For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

Do not write  
in this space

6. Zainal and Marc saved a total of \$193. Suresh and Marc saved a total of \$100. Zainal saved 4 times as much money as Suresh. How much did Marc save?

Answer: \_\_\_\_\_ [3]

7. The mass of a watermelon is 640 g more than the mass of a durian.  
The mass of a jackfruit is twice the mass of a watermelon.  
The total mass of the three fruits is 8.72 kg.  
What is the mass of the jackfruit?

Answer: \_\_\_\_\_ [3]

SCORE

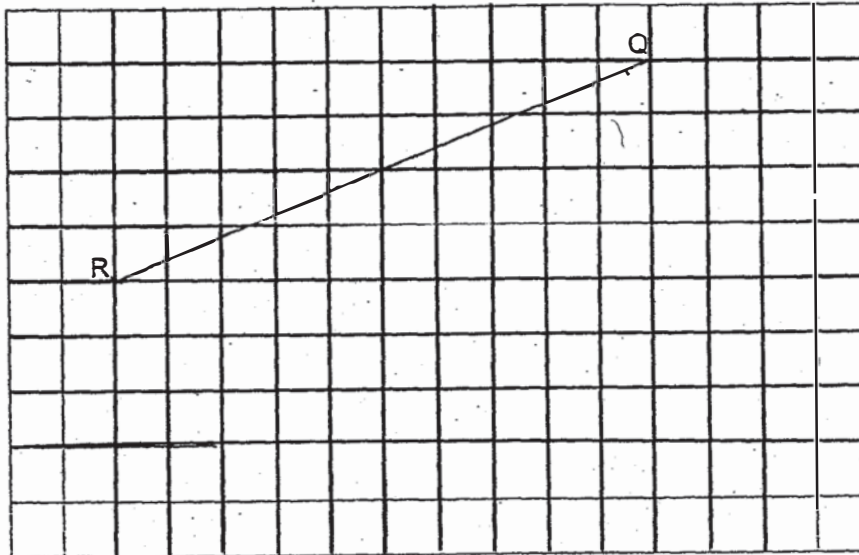
8. In the square grid below, QR is a side of a trapezium.

Do not write  
in this space

(a) Measure the length of QR.

(b) Draw a trapezium PQRS in the square grid such that:  
(i)  $\angle RQP$  is a right angle;

8(b)



Answer: (a) \_\_\_\_\_ [1]

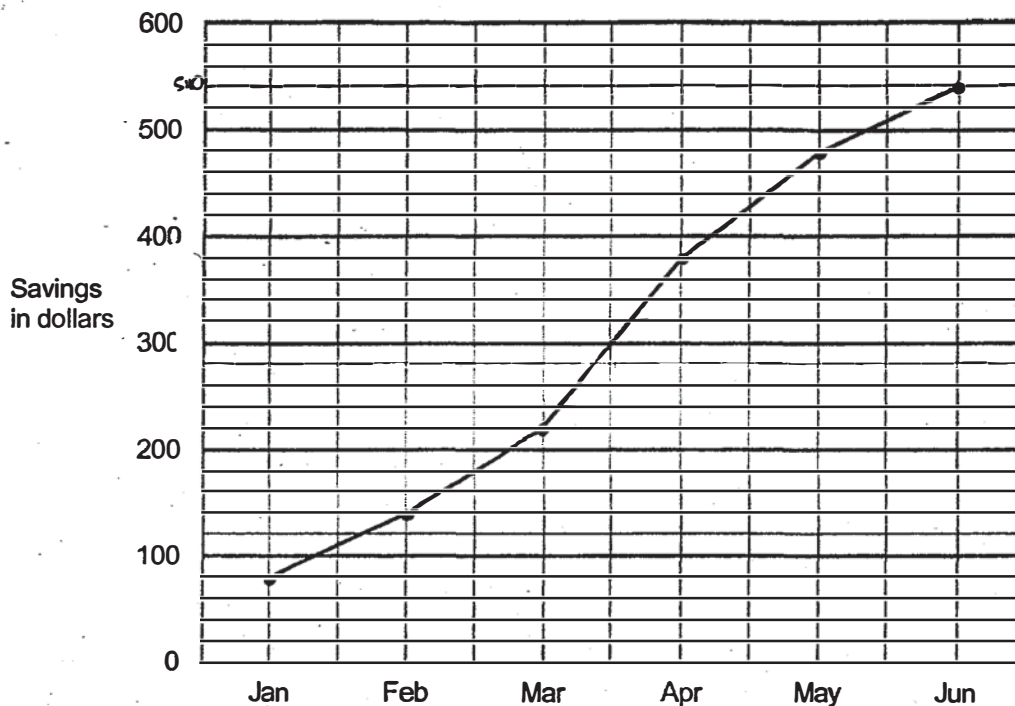
9. At first, the ratio of Leon's savings to Michael's savings was 9 : 7. After each of them donated \$680 to charity, the ratio of Leon's savings to Michael's savings became 5 : 2. What was Michael's savings at first?

Answer \_\_\_\_\_ [3]

SCORE

10. Kai Ling wanted to buy a present for her parents with her savings. She started saving from the beginning of January. The line graph below shows her savings at the end of each month.

Do not write in this space



- (a) In which month did Kai Ling save the most? How much did she save that month?
- (b) At the end of June, Kai Ling realised she had not saved enough for the present. She only managed to save  $\frac{3}{4}$  of the amount she needed. What was the amount she needed for the present?

Answer: (a) Month : \_\_\_\_\_ [1]

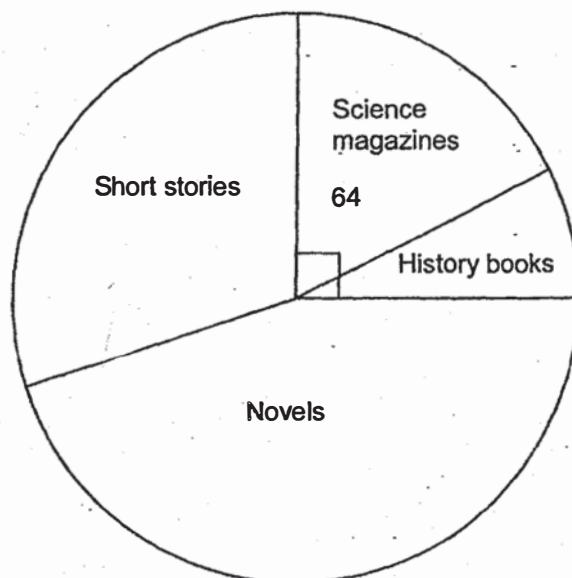
Amount : \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

SCORE

11. There are 360 Primary 6 pupils in a primary school. The pie chart shows the type of books the Primary 6 pupils like to read. 64 pupils like to read Science magazines.

Do not  
in this s



- (a) What fraction of the pupils like to read short stories or novels?
- (b) What percentage of the pupils like to read Science magazines?
- (c) The ratio of the number of pupils who like to read short stories to the number of pupils who like to read novels is 2 : 3.  
What percentage of the pupils like to read novels?

Answer: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [1]

(c) \_\_\_\_\_ [2]

SCORE

12. At a shop, a mobile phone was sold at 40% the price of a television. Both items were sold at a 20% discount. Janet paid \$2016 for both items after the discount. What was the usual price of the television?

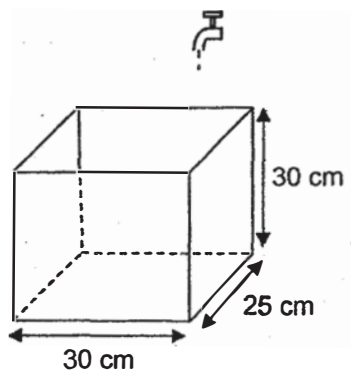
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Answer: \_\_\_\_\_ [3]

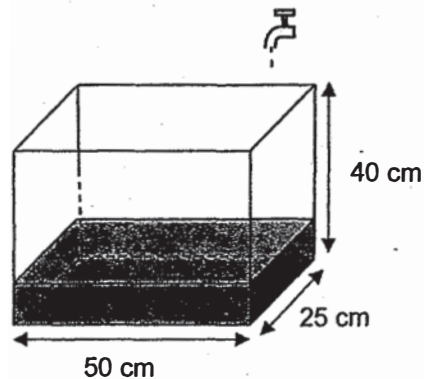
SCORE



13. Two rectangular tanks are shown below.



Tank A



Tank B

At first, Tank A was empty and  $\frac{1}{4}$  of Tank B was filled with water. Both taps were turned on at the same time and water from both taps flowed at the same rate of 1.5 litres per minute.

How long did it take for the height of water to be the same in both tanks?  
(1 litres = 1000 cm<sup>3</sup>)

Do not write  
in this space

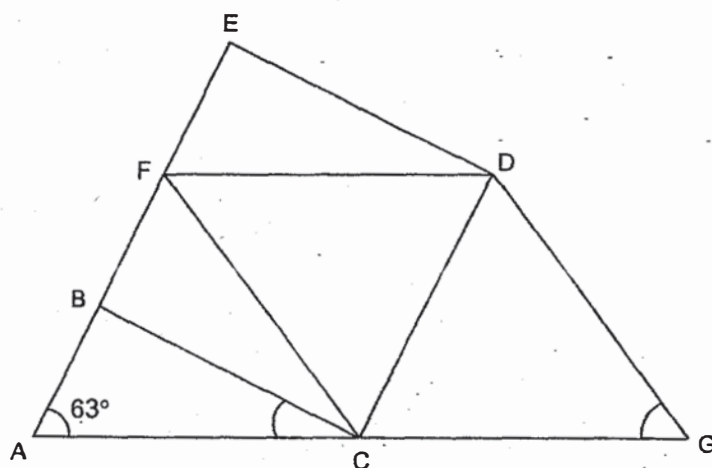
Ans \_\_\_\_\_ [3]

SCORE

14. The figure below is not drawn to scale. ABFE and ACG are straight lines. BCDE is a square and CFDG is a rhombus.  $\angle BAC = 63^\circ$ .

(a) Find  $\angle ACB$ .

(b) Find  $\angle CGD$ .



Do not write  
in this space

Answer: (a) \_\_\_\_\_ [2]

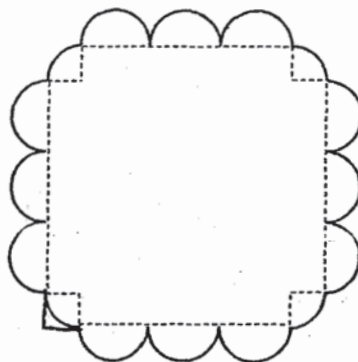
(b) \_\_\_\_\_ [3]

SCORE

15. The figure shows a table mat. The outside edge of the mat is formed by 12 semicircles and 4 quarter circles, each of radius 10 cm.

- (a) Find the perimeter of the mat.  
(b) Find the area of the mat.

Take  $\pi \approx 3.14$ .



Do not write  
in this space

Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]

SCORE

16. Raja and Greg took part in a walkathon which started at 7.20 a.m. Raja's average speed was 30 m/min faster than Greg. When Raja completed the walkathon in 40 minutes, Greg had only walked  $\frac{5}{6}$  of the distance.

- (a) What time was it when Greg completed the walkathon?  
(b) Find Raja's average speed for the walkathon in m/min.

Do not write  
in this space

Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

SCORE

--

17. Lee Peng and Janice had some red and yellow ribbons.  $\frac{4}{9}$  of Lee Peng's ribbons were red, while  $\frac{1}{3}$  of Janice's ribbons were red. Lee Peng gave  $\frac{3}{4}$  of her red ribbons to Janice.  
In the end, Lee Peng had 126 ribbons left and  $\frac{6}{11}$  of Janice's ribbons were red.

- (a) How many red ribbons did Lee Peng give Janice?  
(b) How many ribbons did Janice have in the end?

Do not write  
in this space

Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [3]

---

**End of Paper**

Set by : Mrs Agnes Chua, Mr Tan Keng Hock and Mr Stanley Soh

SCORE



# ANSWER KEY

**YEAR** : 2018  
**LEVEL** : PRIMARY 6  
**SCHOOL** : PEI CHUN PUBLIC  
**SUBJECT** : MATHEMATICS  
**TERM** : PRELIMINARY EXAMINATION

## Paper 1

Q1	2	Q4	3	Q7	1	Q10	3	Q13	3
Q2	3	Q5	3	Q8	2	Q11	1	Q14	1
Q3	4	Q6	4	Q9	4	Q12	2	Q15	4

Q16 22

Q17 27

Q18  $\frac{1}{21}$

Q19 13

Q20  $729 \text{ cm}^3$

Q21 (a) 20700

(b) 0.403

Q22 30 cm

Q23 (a) North-west

(b) D

Q24 100

Q25  $110 \text{ cm}^2$

Q26 (a) DA and CB

(b)  $74^\circ$

Q27 Row : 74  
Column : 8

Q28 3600

Q29 17 days

Q30 (a) False

(b) True

Paper 2

Q1  $\frac{1}{7} \rightarrow 4032 \div 7 = 576$

Females  $\rightarrow 576 \times 2 \Rightarrow 1152$

Q2 Total  $\rightarrow 1.36 \times 4 = 5.44$   
3 boys  $\rightarrow 5.44 - 1.45 = 3.99$   
Average  $\rightarrow 399 \div 3 \Rightarrow 1.33 \text{ m}$

Q3 1 shelf  $\rightarrow 8 \times 12 = 96$   
13 shelves  $\rightarrow 96 \times 13 \Rightarrow 1248 \text{ books}$

Q4 Length  $\rightarrow b \times 3 = 3b$   
Perimeter  $\rightarrow 3b + 3b + b + b \Rightarrow 8b \text{ cm}$

Q5 Area  $\rightarrow 20 \times 15 = 300$   
 $300 \div 2 = 150$   
 $150 \times 2 = 300$   
AD  $\rightarrow 300 \div 12 \Rightarrow 25 \text{ cm}$

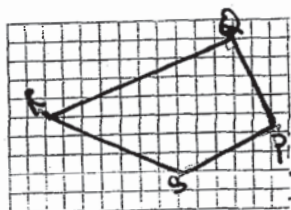
Q6  $2 + M \rightarrow 193$   
 $S + M \rightarrow 100$   
 $1 \text{ unit} \rightarrow 93 \div 3 = 31$   
 $100 - 31 \Rightarrow 69$



Q7  $8.72 + 0.64 = 9.36$   
 $9.36 \div 4 = 2.34$   
 $2.34 \times 2 \Rightarrow \underline{4.68 \text{ kg}}$

Q8 (a) 8.6 cm

(b)



Q9 L : M  
 $9 : 7$   
 $27 : 21$   
 $21 - 4 = 17$   
 $17u = 680$   
 $1u = 680 \div 17 = 40$   
 $M \rightarrow 40 \times 21 \Rightarrow \underline{\$840}$

Q10 (a) Feb  $\rightarrow 140 - 80 = 60$   
Mar  $\rightarrow 220 - 140 = 80$   
Apr  $\rightarrow 380 - 220 \Rightarrow \underline{\$160}$   
Month : April  
Amount : \$160

(b) Total  $\rightarrow 60 + 80 + 160 + 100 + 60 = 460$   
 $\frac{3}{4} \rightarrow 460 + 80 = 540$

$\frac{1}{4} \rightarrow 540 \div 3 = 180$

$\frac{4}{4} \rightarrow 180 \times 4 \Rightarrow \underline{\$720}$

Q11 (a)  $1 - \frac{1}{4} \Rightarrow \frac{3}{4}$

(b)  $\frac{64}{360} \times 100 \Rightarrow 17\frac{7}{9}\%$

(c)  $360 - 90 = 270$   
 $270 \div 5 = 54$   
 $54 \times 3 = 162$

$\frac{162}{360} \times 100 \Rightarrow \underline{45\%}$

Q12  $80\% \rightarrow 2016$   
 $100\% \rightarrow 2016 \div 80 \times 100 = 2520$   
 $140\% \rightarrow 2520$   
 $100\% \rightarrow 2520 \div 140 \times 100 \Rightarrow \underline{\$1800}$

Q13 Tank A Tank B  
 Height  $\rightarrow 1500 \div (30 \times 25) = 2 \text{ cm}$  Height  $\rightarrow 1500 \div (50 \times 25) = 1.2 \text{ cm}$   
 Diff  $\rightarrow 2 - 1.2 = 0.8$   
 $10 \div 0.8 \Rightarrow \underline{12.5 \text{ min}}$

Q14 (a)  $\angle ABC = 180^\circ - 90^\circ = 90^\circ$   
 $\angle ACB = 180^\circ - 90^\circ - 63^\circ \Rightarrow \underline{27^\circ}$   
 (b)  $\angle DCG = 180^\circ - 90^\circ - 27^\circ = 63^\circ$   
 $\angle CGD = 180^\circ - 63^\circ - 63^\circ \Rightarrow \underline{54^\circ}$

Q15 (a)  $D \rightarrow 10 \times 2 = 20$

Semi  $\rightarrow \frac{1}{2} \times 3.14 \times 20 = 31.4$

12 semi  $\rightarrow 31.4 \times 12 = 376.8$

Quar  $\rightarrow \frac{1}{4} \times 3.14 \times 20 = 15.7$

4 quar  $\rightarrow 15.7 \times 4 = 62.8$

Perimeter  $\rightarrow 62.8 + 376.8 \Rightarrow \underline{439.6 \text{ cm}}$

(b) 2 small rectangles  $\rightarrow 60 \times 10 \times 2 = 1200$   
 $80 \times 60 = 4800$   
 $31.4 \times 10 \times 10 \times 7 = 2198$   
 Total  $\rightarrow 2198 + 1200 + 4800 \Rightarrow \underline{8198 \text{ cm}^2}$

Q16 (a) 8:08 am

(b)  $150 + 30 \Rightarrow \underline{180 \text{ m/min}}$

Q17 (a)  $6u \rightarrow 126$   
 $1u \rightarrow 126 \div 6 = 21$   
 $21 \times 3 \Rightarrow \underline{63 \text{ red/ribbons}}$

(b) 

J Before	J After
R : Y	R : Y
1 : 2	12 : 10
5 : 10	
$7u = 63$	
$22u = 63 \div 7 \times 22 \Rightarrow \underline{198 \text{ ribbons}}$	

End





PEI HWA PRESBYTERIAN PRIMARY SCHOOL  
PRELIMINARY EXAMINATION

PRIMARY 6  
MATHEMATICS PAPER 1  
(BOOKLET A)

21 AUGUST 2018

Name : \_\_\_\_\_

Form Class / Register No. : 6R \_\_\_\_\_ / \_\_\_\_\_

Banded Class / Register No. : 6M \_\_\_\_\_ / \_\_\_\_\_

Total time for Booklets A and B: 1h

**INSTRUCTIONS TO CANDIDATES**

1. Write your Name, Class and Register No. in the spaces provided above.
2. DO NOT turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers on the Optical Answer Sheet (OAS) provided.
6. The use of calculator is **NOT ALLOWED**.

This booklet consists of 6 printed pages, excluding the cover page.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

(20 marks)

1 Find the value of 72 hundreds and 16 ones.

(1) 7216

(2) 880

(3) 736

(4) 88

( )

2 Which of the following is equal to  $5\frac{1}{3}$ ?

(1)  $5 \times \frac{1}{3}$

(2)  $5 \div \frac{1}{3}$

(3)  $16 \times \frac{1}{3}$

(4)  $16 \div \frac{1}{3}$

( )

3 Which one of the following numbers is nearest to 8?

(1) 8.1

(2) 8.09

(3) 8.03

(4) 8.004

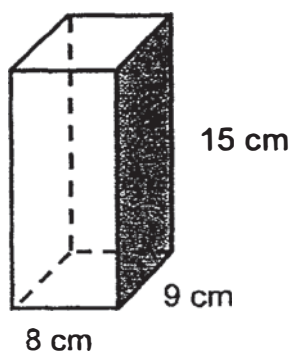
( )

4 Express 1 036 millilitres in litres.

- (1) 1.036 litres
- (2) 1.36 litres
- (3) 10.36 litres
- (4) 101.36 litres

( )

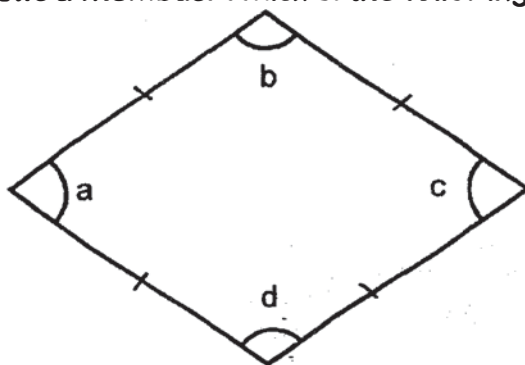
5 The empty cuboid below measures 8 cm by 9 cm by 15 cm. Find the area of the shaded face.



- (1)  $1080 \text{ cm}^2$
- (2)  $135 \text{ cm}^2$
- (3)  $120 \text{ cm}^2$
- (4)  $72 \text{ cm}^2$

( )

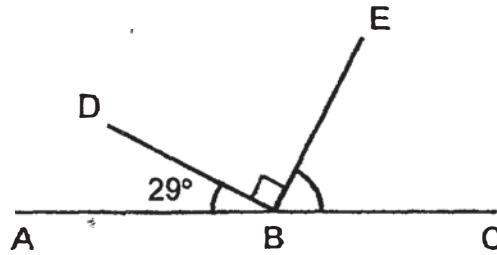
6 The figure below shows a rhombus. Which of the following is true?



- (1)  $\angle a = 90^\circ$  ?
- (2)  $\angle b = \angle c$  x
- (3)  $\angle b + \angle d = 180^\circ$  x
- (4)  $\angle a + \angle b = 180^\circ$  ✓

( )

- 7 In the figure, ABC is a straight line.  $\angle DBE = 90^\circ$  and  $\angle DBA = 29^\circ$ . Find  $\angle EBC$ .



- (1)  $21^\circ$
- (2)  $61^\circ$
- (3)  $90^\circ$
- (4)  $151^\circ$

( )

- 8 Find 2% of \$2000.

- (1) \$4
- (2) \$40
- (3) \$400
- (4) \$4000

( )

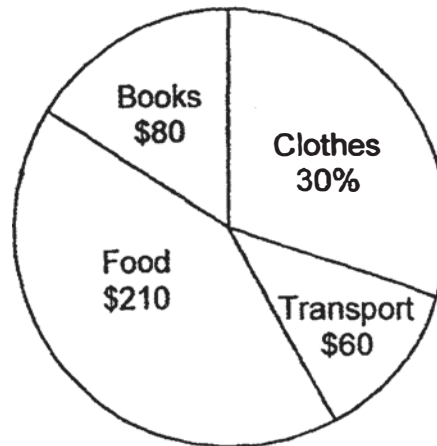
- 9 In a class, there are 38 students. 28 of them are girls and the rest are boys. Find the ratio of the number of girls to the number of boys to the total number of students in the class.

- (1) 5 : 14 : 19
- (2) 5 : 19 : 14
- (3) 14 : 5 : 19
- (4) 14 : 19 : 5

( )



- 10 The pie chart shows how Doris spent her money. How much did Doris spend on clothes?



- (1) \$70
- (2) \$150
- (3) \$190
- (4) \$500

( )

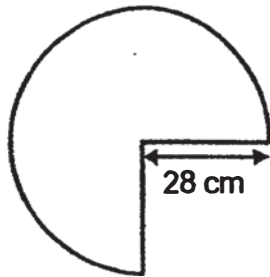
- 11 Roy uses the four letters, C, A, R, E, to form a pattern. The first 16 letters are shown below. Which letter is in the 59<sup>th</sup> position?

C A R E C A R E C A R E C A R E...																	
1 <sup>st</sup>																16 <sup>th</sup>	

- (1) C
- (2) A
- (3) R
- (4) E

( )

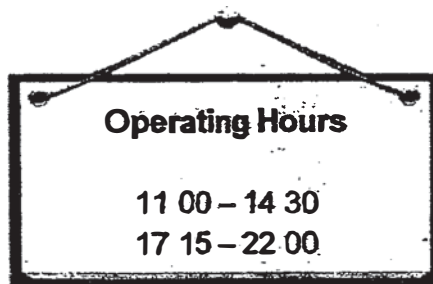
- 12 Find the perimeter of a  $\frac{3}{4}$ -circle of radius 28 cm. (Take  $\pi = \frac{22}{7}$ )



- (1) 132 cm  
(2) 144 cm  
(3) 188 cm  
(4) 232 cm

( )

- 13 A restaurant opens daily for the time shown in the table below.

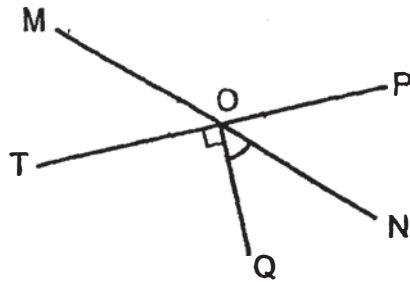


How many hours and minutes is the restaurant open each day?

- (1) 11 h 15 min  
(2) 10 h 15 min  
(3) 9 h 15 min  
(4) 8 h 15 min

( )

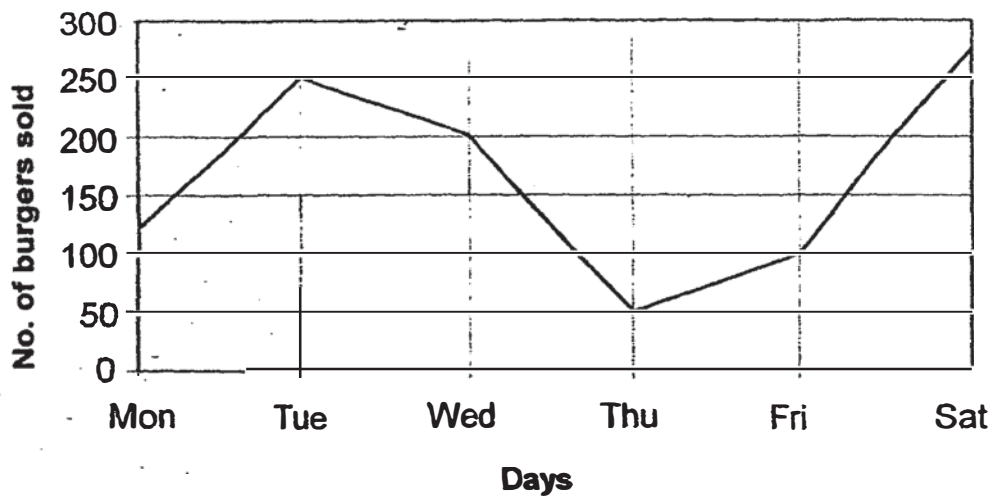
- 14 In the figure below, MN and TP are straight lines.  $\angle MOP$  is twice the size of  $\angle MOT$ . Find  $\angle NOQ$ .



- (1)  $30^\circ$   
 (2)  $45^\circ$   
 (3)  $54^\circ$   
 (4)  $60^\circ$

( )

- 15 The line graph shows the number of burgers Mr Tan sold from Monday to Saturday.



Each burger was sold at \$4. How much more money did Mr Tan earn on Tuesday than on Thursday?

- (1) \$200  
 (2) \$600  
 (3) \$800  
 (4) \$1000

( )

-- End of Booklet A --



PEI HWA PRESBYTERIAN PRIMARY SCHOOL  
PRELIMINARY EXAMINATION

PRIMARY 6  
MATHEMATICS PAPER 1  
(BOOKLET B)

21 AUGUST 2018

Parent's signature

Name : \_\_\_\_\_

Form Class / Register No. : 6R \_\_\_\_\_ / \_\_\_\_\_

Banded Class / Register No. : 6M \_\_\_\_\_ / \_\_\_\_\_

Total time for Booklets A and B: 1h

**INSTRUCTIONS TO CANDIDATES**

1. Write your Name, Class and Register No. in the spaces provided above.
2. DO NOT turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write all your answers in this booklet.
6. The use of calculator is **NOT ALLOWED**.

Marks (Booklet A) :	20
Marks (Booklet B) :	25
Total Marks (Booklets A and B) :	45

This booklet consists of 7 printed pages, excluding the cover page.

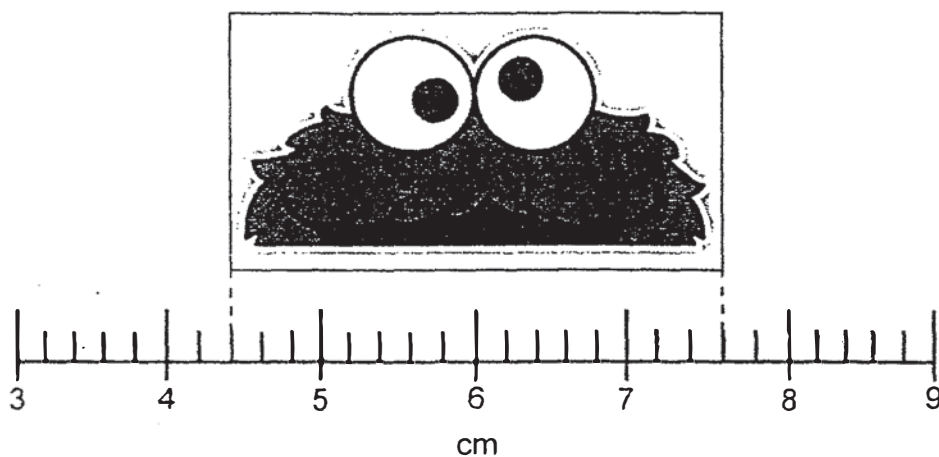
Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not write  
in this space

16 Find the value of  $12.3 - 0.99$ .

Ans: \_\_\_\_\_

17 What is the length of the sticker as shown in the figure below?



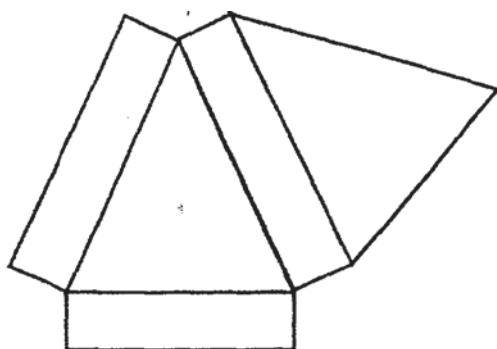
Ans: \_\_\_\_\_ cm

18 Express 0.035 as a percentage.

Ans: \_\_\_\_\_ %

- 19 Name the solid formed by the following net.

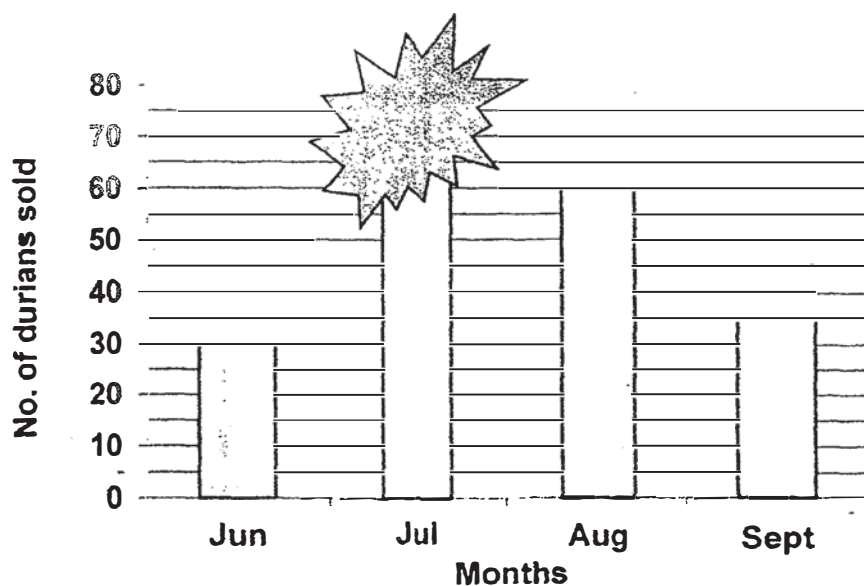
Do not write  
in this space



Ans:

0

- 20 The bar graph below shows the number of durians Mr Tan sold from June to September.



The total number of durians sold by Mr Tan from June to September was 200. How many durians were sold in July?

Ans: \_\_\_\_\_

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Do not write in this space

- 21 Express  $2\frac{6}{7}$  as a decimal. Give your answer to 2 decimal places.

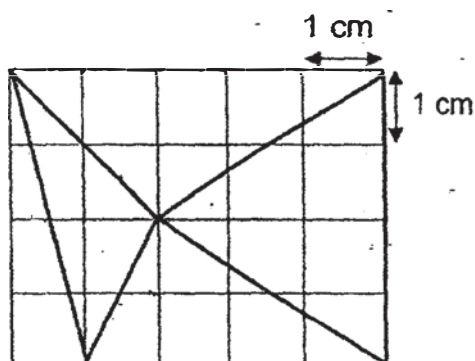
Ans: \_\_\_\_\_

- 22 The table below shows the postage rate for mail at a post office. How much does Jack have to pay if his parcel weighs 67 g?

Mass Step	Postage (\$)
First 30 g	\$2.00
Every additional 10 g	\$0.90

Ans: \$ \_\_\_\_\_

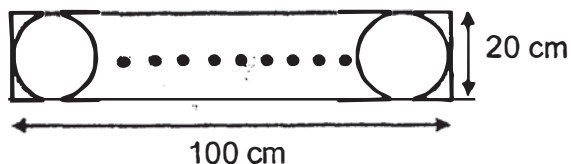
- 23 The figure below shows 2 shaded triangles. Find the total area of the shaded triangles.



Ans: \_\_\_\_\_ cm<sup>2</sup>

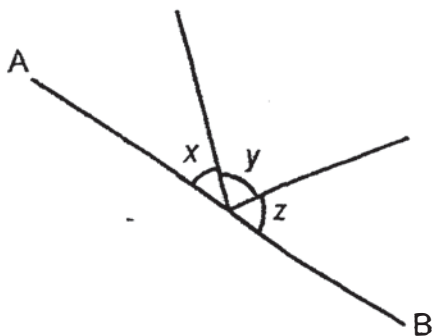
Do not write  
in this space

- 24 Jenny wants to cut the maximum number of identical circles from a piece of rectangular cardboard measuring 100 cm by 20 cm as shown in the figure below. What is the total area of the circles cut out from the cardboard? (Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ cm<sup>2</sup>

- 25 In the figure below, AB is a straight line. The sum of  $\angle x$  and  $\angle y$  is  $124^\circ$ . The sum of  $\angle x$  and  $\angle z$  is  $97^\circ$ . Find  $\angle x$ .



Ans: \_\_\_\_\_



Do not write  
in this space

- 26 Gwen is 6 times as old as her brother. In 12 years' time, she will be twice as old as her brother. How old is Gwen now?

Ans: \_\_\_\_\_

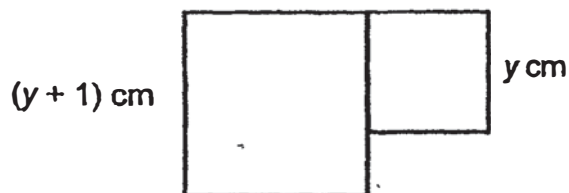
- 27 The table below shows the number of hamsters owned by a group of children. The total number of hamsters owned by the children is 88. How many children owned 2 hamsters?

Number of hamsters	0	1	2	3	4
Number of children	4	12	?	10	6

Ans: \_\_\_\_\_

Do not write  
in this space

- 28 In the figure below, there are 2 squares. Each side of the smaller and larger square is  $y$  cm and  $(y + 1)$  cm respectively. Find the perimeter of the figure.



Ans: \_\_\_\_\_ cm

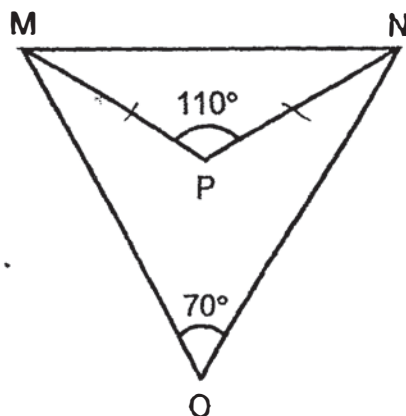
- 29 Muthu sold 147 marbles on Monday. He sold  $\frac{3}{7}$  of the remainder on Tuesday and had half of his marbles left. Find the number of marbles he sold altogether.

Ans: \_\_\_\_\_

Do not write  
in this space

- 30 Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

In the figure below, MNO and MNP are triangles.  $PM = PN$ ,  $\angle MPN = 110^\circ$  and  $\angle MON = 70^\circ$ .



Statement	True	False	Not possible to tell
(a) $\angle MNP$ is $35^\circ$ .			
(b) $\angle OMP = \angle ONP = 20^\circ$			

– End of Booklet B –



**PEI HWA PRESBYTERIAN PRIMARY SCHOOL  
PRELIMINARY EXAMINATION**

**PRIMARY 6  
MATHEMATICS  
PAPER 2**

**21 AUGUST 2018**

Parent's signature

Name : \_\_\_\_\_

Form Class / Register No. : 6R \_\_\_\_\_ / \_\_\_\_\_

Banded Class / Register No. : 6M \_\_\_\_\_ / \_\_\_\_\_

**Total time: 1h 30min**

**INSTRUCTIONS TO CANDIDATES**

1. Write your Name, Class and Register No. in the spaces provided above.
2. DO NOT turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write all your answers in this booklet.
6. The use of an approved calculator is expected, where appropriate.

Paper 1 :	45
Paper 2 :	55
Total Marks :	100

**This booklet consists of 13 printed pages, excluding the cover page.**

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write  
in this space

- 1 A bottle is  $\frac{3}{4}$  filled with water. This amount of water is equivalent to 5 identical cups of water. 2 cups of water from the bottle are then poured away. What fraction of the bottle is still filled with water?

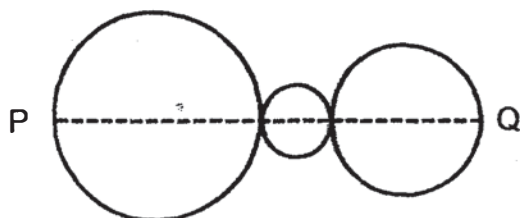
Ans: \_\_\_\_\_

- 2 Mrs Brooklyn had enough money to buy either 6 mops or 9 brooms. Each mop was \$3.85 more than each broom. How much money did she have?

Ans: \$ \_\_\_\_\_

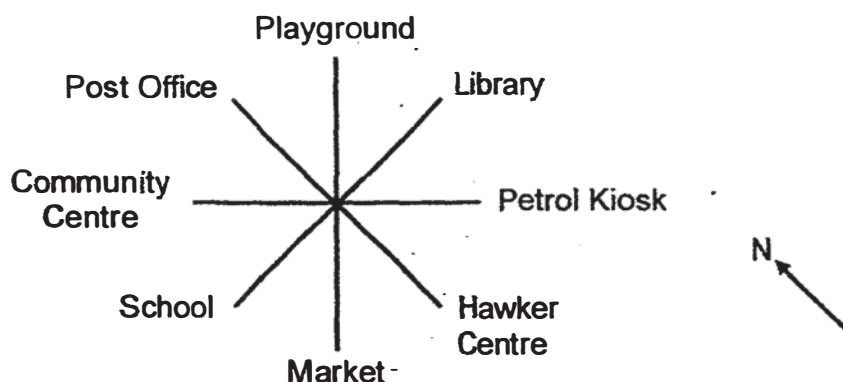
Do not write  
in this space

- 3 Three circles are placed side-by-side as shown below. PQ is 7.5 cm and it cuts through the centres of all the circles. Find the circumference of the 3 circles. (Take  $\pi = 3.14$ )



Ans: \_\_\_\_\_ cm

- 4 The following diagram shows 8 different locations.

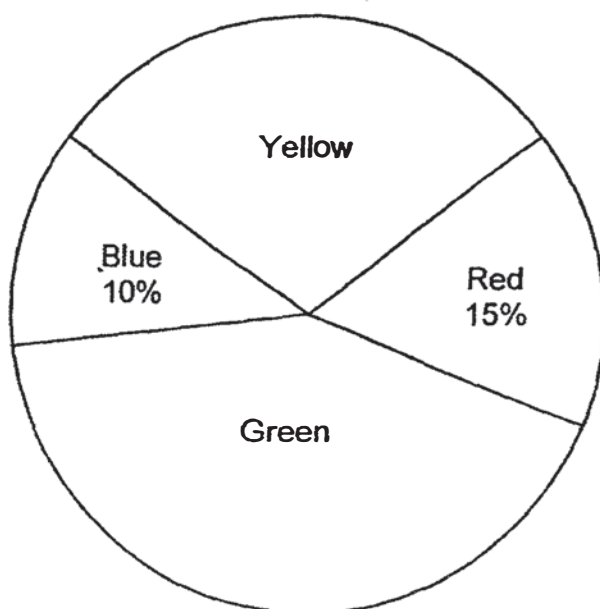


Jasmine is facing the south-west direction at first. Which location will she be facing after making a  $135^\circ$  anti-clockwise turn?

Ans: \_\_\_\_\_

Do not write  
in this space

- 5 Roslina has some coloured beads as shown in the pie chart below.  
The ratio of the number of yellow beads to the number of green beads is  
2 : 3. What percentage of the beads is green?



Ans: \_\_\_\_\_ %

For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

Do not write  
in this space

- 6 A cubical container contained 2.25 l of water when  $\frac{2}{3}$  filled. Find the length of one side of the container.

Ans: \_\_\_\_\_ [3]

- 7 At a bakery shop, a cupcake costs \$x and a brownie costs 80¢ more than the cupcake. Thomas wants to buy an equal number of cupcakes and brownies. What is the maximum sets of cupcakes and brownies Thomas can buy with \$50?

Ans: \_\_\_\_\_ [3]

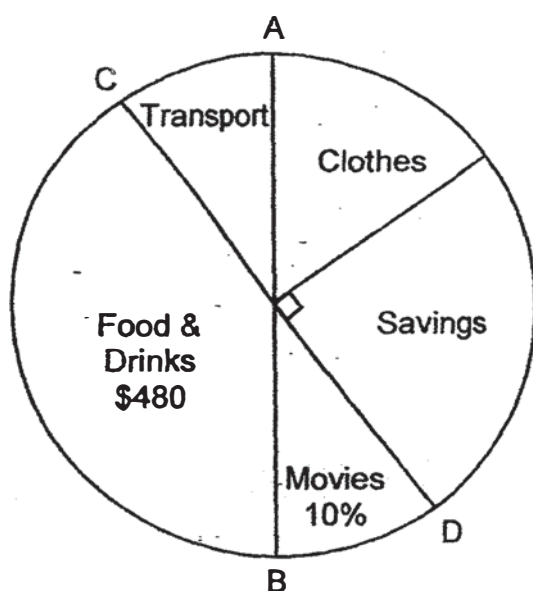


Do not write  
in this space

- 8 Mr Ong has 3 bags of rice, Bag A, Bag B and Bag C. Bag C weighs 600g. Bag A weighs 600g more than half of Bag B. The mass of Bag B is the total mass of Bag A and Bag C. What is the total mass of the 3 bags of rice?

Ans: \_\_\_\_\_ [3]

- 9 The pie chart below shows how Wilbur spent his salary last month. AB and CD are straight lines. Wilbur spent 10% of his money on watching movies. He spent the same amount of money on transport and watching movies. Find the amount of money he spent on clothes.



Ans: \_\_\_\_\_ [3]

Do not write  
in this space

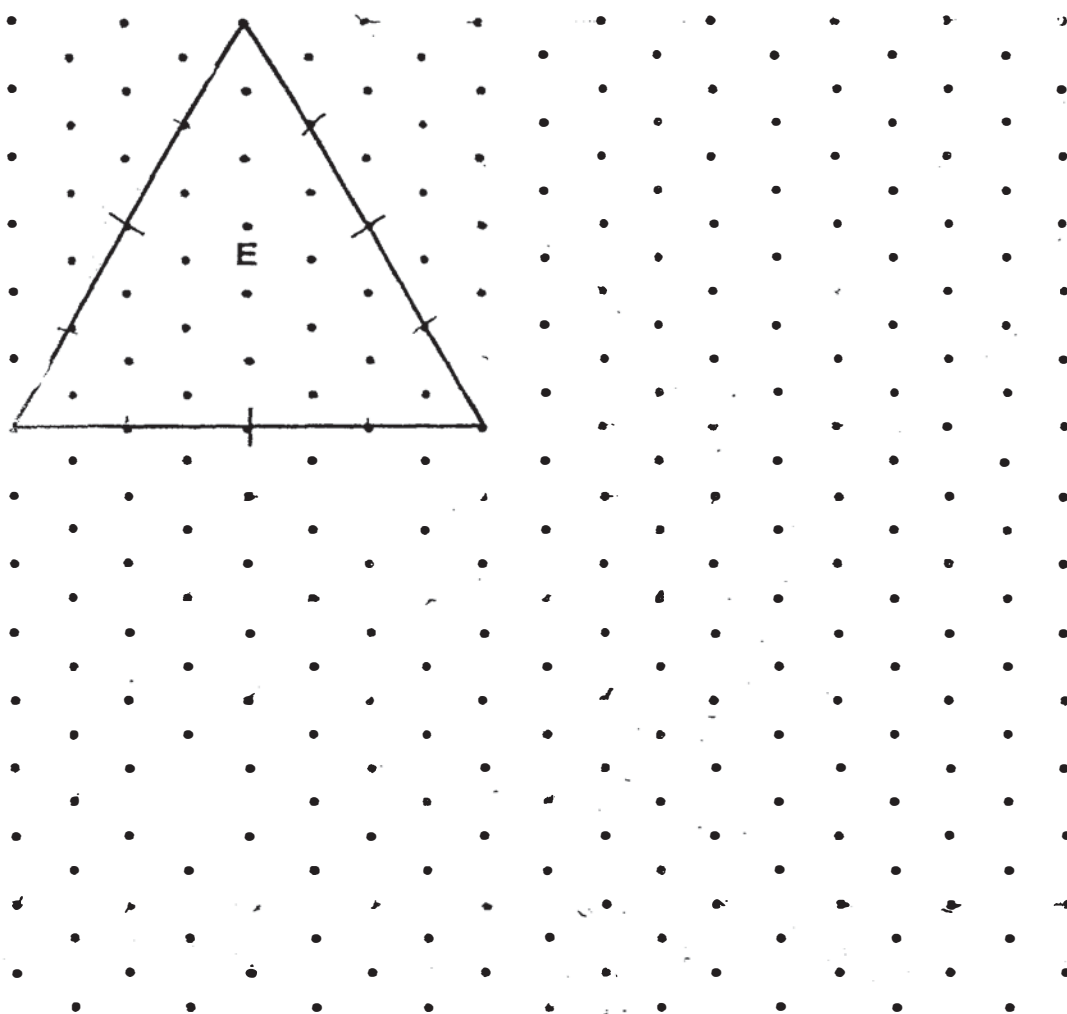
- 10 A car set off at 07 45 from Town A at an average speed of 80 km/h and reached Town B at 09 45. A truck set off from Town A 2 hours earlier and reached Town B at the same time as the car. If the truck were to increase its average speed by 10 km/h, how much time would it have taken to reach Town B?

Ans: \_\_\_\_\_ [3]

Do not write  
in this space

11 An equilateral triangle **E** is drawn by joining dots on the grid below with three straight lines. In the same way,

- (a) draw an isosceles triangle with the same height as **E**. Label the triangle **T**. [1]
- (b) draw a rhombus with the same perimeter as **E**. Label the rhombus **R**. [2]
- (c) Find the sum of all the angles in **E**, **T** and **R**.

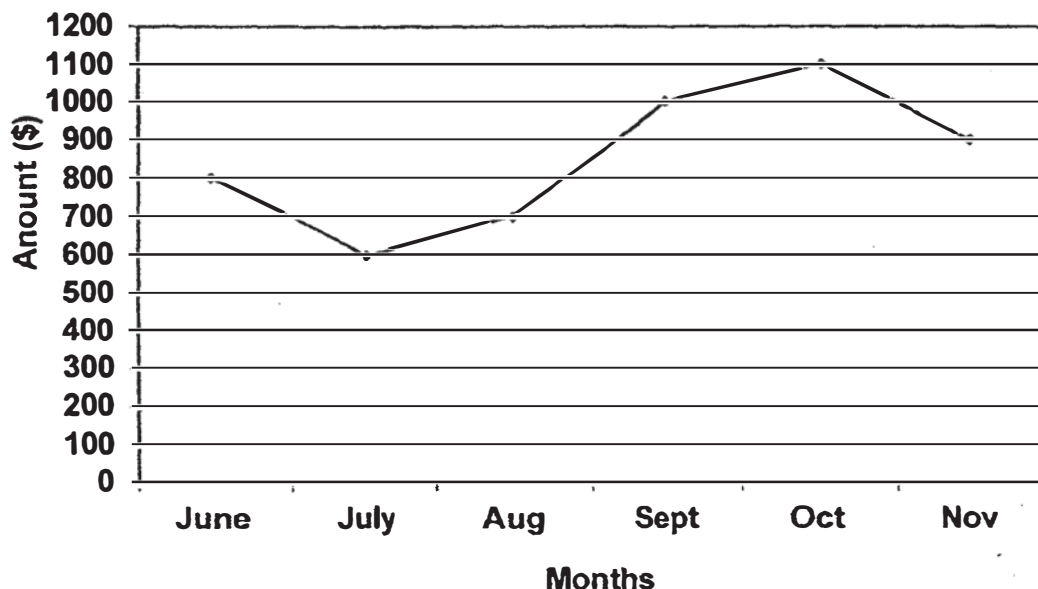


Ans: (c) \_\_\_\_\_ [1]



12. The line graph below shows the amount of money Mrs Kim spent during the Great Singapore Sale from June to November.

Do not write  
in this space



- (a) What was the average amount of money Mrs Kim spent at the Great Singapore Sale over the six months?
- (b) Mrs Kim used the amount of money spent in November to buy a dress, a necklace and a watch in the ratio 4 : 5 : 3. How much did the necklace cost?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



Do not write  
in this space

- 13 Kate had 70 more Otah buns than Curry buns. She sold  $\frac{3}{4}$  of the Otah buns and  $\frac{3}{5}$  of the Curry buns. She sold 126 more Otah buns than Curry buns. What fraction of the remaining buns that Kate had were Curry buns?

Ans: \_\_\_\_\_ [4]

Do not write  
in this space

- 14 Hailey used 4 identical sticks to form a square as shown below.



She then formed a pattern using more of the sticks.



- (a) How many sticks are used to form 13 squares?  
(b) How many squares are formed using 100 sticks?

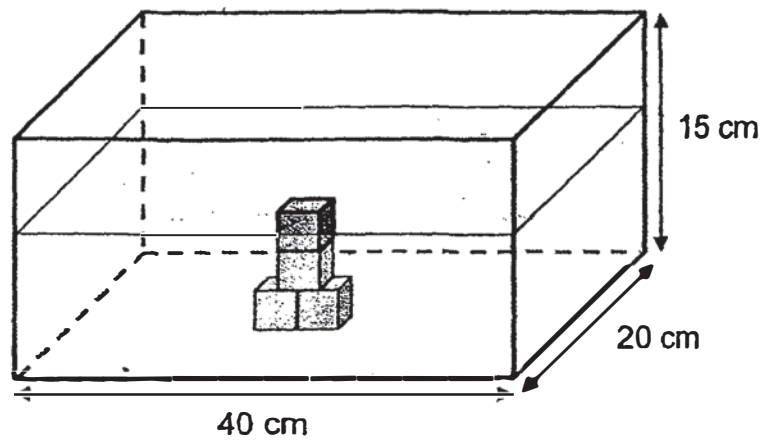
Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]



15 Study the figure below.

Do not write  
in this space



Four 3-cm cubes were placed in a tank measuring 40 cm by 20 cm by 15 cm. 5747.3 cm<sup>3</sup> of water was then poured into the tank. Find the height of the water level in the tank.

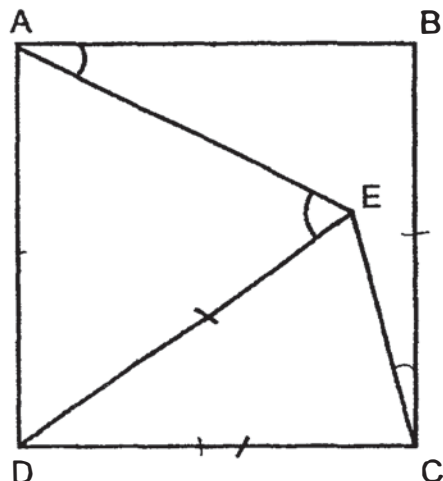
Ans: \_\_\_\_\_ [4]



Do not write  
in this space

- 16 In the figure below, ABCD is a square.  $DE = DC$  and  $\angle ECB$  is  $\frac{1}{4}$  of  $\angle ECD$ .

- (a) Find  $\angle AED$ .  
(b) Find  $\angle BAE$ .



Ans: (a) \_\_\_\_\_ [4]

(b) \_\_\_\_\_ [1]





Do not write  
in this space

- 17 Lynn baked some cookies. 20% of the cookies were eaten. The rest of the cookies were given to Ryan, Gerald and Tim in the ratio of 7 : 3 : 2. After Ryan gave 320 cookies to Tim, Tim then had 50% as many cookies as Ryan. How many cookies did Lynn bake at first?

Ans: \_\_\_\_\_ [5]

– End of Paper 2 –



## ANSWER KEY

**YEAR : 2018**  
**LEVEL : PRIMARY 6**  
**SCHOOL : PEI HWA PRESBYTERIAN PRIMARY SCHOOL**  
**SUBJECT : MATHEMATICS**  
**TERM : PRELIMINARY EXAMINATION**

### PAPER 1 BOOKLET A

Q1	1	Q2	3	Q3	4	Q4	1	Q5	2
Q6	4	Q7	2	Q8	2	Q9	3	Q10	2
Q11	3	Q12	3	Q13	4	Q14	1	Q15	3

### PAPER 1 BOOKLET B

Q16) 11.31

Q17) 3.2cm

Q18) 3.5%

Q19) Triangular prism

Q20) 75 durians

Q21) 2.86

Q22) \$3.60

Q23) 9cm<sup>2</sup>

Q24) 1570cm<sup>2</sup>

Q25) 41°

Q26) 18 years old

Q27) 11 children

Q28) ( 6y + 4) cm



Q29) 588 marbles

Q30) a: true      b: Not possible to tell

## PAPER 2

Q1) 5 cups  $\rightarrow \frac{3}{4}$

1 cup  $\rightarrow \frac{3}{4} \div 5$

$= \frac{3}{20}$  bottle

$5 - 2 = 3$

3 cups  $\rightarrow \frac{3}{20} \times 3$

Ans  $= \frac{9}{20}$  bottle

Q2)  $9 - 6 = 3$

3 brooms  $\rightarrow 3.85 \times 6 = \$23.10$

1 broom  $\rightarrow 23.10 \div 3 = \$7.70$

9 brooms  $\rightarrow 7.70 \times 9 = \underline{\$69.30}$

Q3)  $3.14 \times 7.5 = \underline{23.55\text{cm}}$

Q4)  $90 \div 2 = 45$

$90 + 45 = 135$

$= \underline{\text{Library}}$

Q5) Y : G

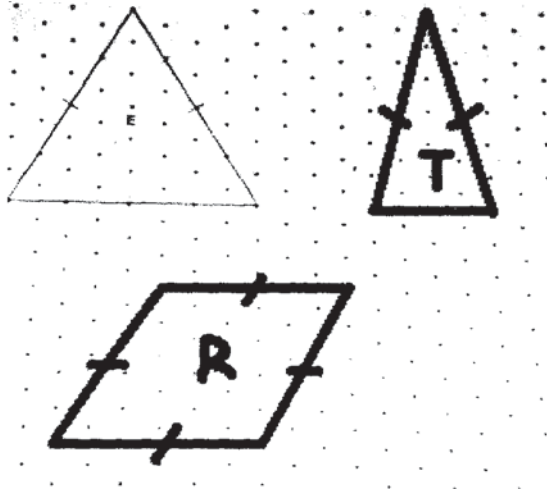
$2 : 3 (5u)$

$5u \rightarrow 100 - 10 - 15 = 75\%$

$1u \rightarrow 75 \div 5 = 15\%$

$3u \rightarrow 15 \times 3 = \underline{45\%}$

Q11)



Q11c)  $(180 \times 2) + 360 = \underline{720^\circ}$

Q12a)  $800 + 600 + 700 + 1000 + 1100 + 900 = 5100$   
 $5100 \div 6 = \underline{\$850}$

Q12b) D : N : W  
 $4 : 5 : 3$  (12u)  
 $12u \rightarrow 900$   
 $1u \rightarrow 900 \div 12 = 75$   
 $5u \rightarrow 75 \times 5 = \underline{\$375}$

Q13)  $\frac{3}{4}$  otah buns =  $\frac{15}{20}$

$\frac{3}{5}$  curry buns =  $\frac{12}{20}$

Otah : curry

$1u + 70 : 1u$

$20u + 70 : 20u$

$-15u \quad 52.5 : -12u$

$5u + 17.5 : 8u$

$\frac{3}{4} \times 70 = 52.5$

$70 - 52.5 = 17.5$

$15u - 12u = 3u$

$3u + 52.5 = 126$

$3u \rightarrow 126 - 52.5 = 73\frac{1}{2}$

4

Q6)  $\frac{2}{3} \rightarrow 2250$

$$\frac{1}{3} \rightarrow 2250 \div 2 = 1125\text{cm}^3$$

$$\frac{3}{3} \rightarrow 1125 \times 3 = 3375\text{cm}^3$$

$$\sqrt[3]{3375} = \underline{15\text{cm}}$$

Q7) cupcake: x

brownie: x + 0.8

1 cupcake + 1 brownie: 2x + 0.8

Total can buy:  $\frac{50}{2x+0.8}$

Ans:  $\frac{50}{2x+0.8}$

Q8)  $\frac{1}{2} B \rightarrow 600 \times 2 = 1200\text{g}$

$$B \rightarrow 1200 \times 2 = 2400\text{g}$$

$$A \rightarrow 1200 + 600 = 1800\text{g}$$

$$A + B + C \rightarrow 1800 + 2400 + 600 = \underline{4800\text{g}}$$

Q9) Movies = Transport = 10%

$$\text{Clothes} \rightarrow (100\% \div 2) - 25 - 10 = 15\%$$

$$\text{Food and drinks} \rightarrow (100\% \div 2) - 10 = 40\%$$

$$40\% \rightarrow \$480$$

$$1\% \rightarrow 12$$

$$15\% \rightarrow 12 \times 15 = \underline{\$180}$$

Q10) S  $\rightarrow 40 + 10 = 50\text{km/h}$

$$D \rightarrow 160\text{km}$$

$$T \rightarrow 160 \div 50 = 3 \frac{1}{5} \text{ h}$$

Ans:  $3 \frac{1}{5} \text{ h}$

$$1u \rightarrow 73\frac{1}{2} \div 3 = 24\frac{1}{2}$$

$$\text{Otah buns } 5u \rightarrow 122\frac{1}{2}$$

$$122\frac{1}{2} + 17.5 = 140$$

$$\text{Curry buns } 8u \rightarrow 196$$

$$\text{Ans: } \frac{196}{140+196} = \frac{7}{12}$$

$$\text{Q14a) sticks } \rightarrow (13 \times 3) + 1 = \underline{40 \text{ sticks}}$$

$$\text{Q14b) squares } \rightarrow (100 - 1) \div 3 = \underline{33 \text{ squares}}$$

$$\text{Q15) Base area of tank: } 40 \times 20 = 800$$

$$\text{Base area of 2 cubes: } 6 \times 3 = 18$$

$$\text{Layer 1: } (800 - 18) \times 3 = 2346\text{cm}^3$$

$$\text{Base area of 1 cube: } 3 \times 3 = 9$$

$$800 - 9 = 791$$

$$\text{Amount of water at layer 2: } 5747.3 - 2346 = 3401.3\text{cm}^3$$

$$3401.3 \div 791 = 4.3$$

$$4.3 + 3 = \underline{7.3\text{cm}}$$

$$\text{Q16a) } 90 \div 5 = 18$$

$$<\text{DCE} \rightarrow 18 \times 4 = 72$$

$$<\text{EDC} \rightarrow 180 - (72 \times 2) = 36$$

$$<\text{ADE} \rightarrow 90 - 36 = 54$$

$$<\text{AED} \rightarrow (180 - 54) \div 2 = 63^\circ$$

$$\text{Q16b) } <\text{BAE} \rightarrow 90 - 63 = \underline{27^\circ}$$

$$\text{Q17) } R : G : T$$

$$7 : 3 : 2 \quad (12u)$$

$$1u \rightarrow 320$$

$$15u \rightarrow 320 \times 15 = \underline{4800}$$

5

END





**RIVER VALLEY PRIMARY SCHOOL**  
**PRELIMINARY EXAMINATION**  
**2018**  
**MATHEMATICS**  
**PRIMARY SIX**

Date : 21 August 2018

Duration : 60 min (Total time for Booklets A and B)

**PAPER 1**

**(BOOKLET A)**

**INSTRUCTIONSTO CANDIDATES**

1. Write your Name, Register No. and Class in the space above.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers on the Optical Answer Sheet (OAS) provided.
6. You are not allowed to use a calculator.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet. (20 marks)

---

1. Which of the following is **not** a common factor of 18 and 30?

- (1) 6
- (2) 2
- (3) 3
- (4) 5

2. 6 ones, 5 tenths and 9 thousandths is \_\_\_\_\_.

- (1) 0.659
- (2) 6.059
- (3) 6.509
- (4) 6.59

3. Arrange the following numbers from the smallest to the largest.

8.001 , 8.1 , 8.01 , 81.01

- (1) 81.01 , 8.1 , 8.01 , 8.001
- (2) 8.01 , 8.1 , 8.001 , 81.01
- (3) 8.001 , 8.01 , 8.1 , 81.01
- (4) 8.001 , 8.1 , 8.01 , 81.01

4. Which of the following fractions is the greatest?

(1)  $\frac{3}{7}$

(2)  $\frac{5}{9}$

(3)  $\frac{5}{11}$

(4)  $\frac{6}{13}$

5. The table below shows the charges for parking at a shopping centre.

PARKING CHARGES	
For the first hour	\$3.00
For every subsequent $\frac{1}{2}$ hour or part thereof	\$1.20

Rex parked his car in the car park from 10.30 a.m. to 12.40 p.m. on the same day. How much did he pay altogether for the parking fee?

(1) \$5.40

(2) \$4.20

(3) \$6.60

(4) \$7.80

6. Simplify  $10c + 8 - 5c + 2c - 2$ .

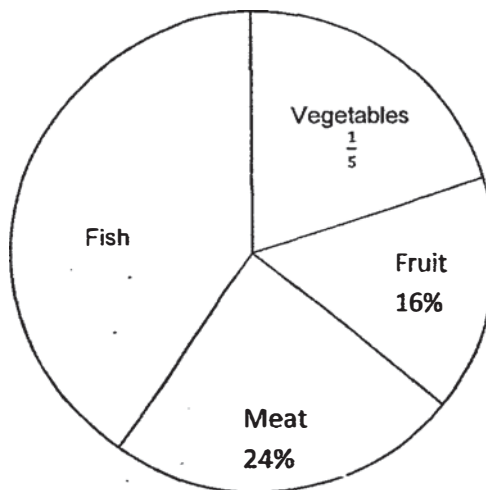
(1)  $7c + 10$

(2)  $7c + 6$

(3)  $3c + 10$

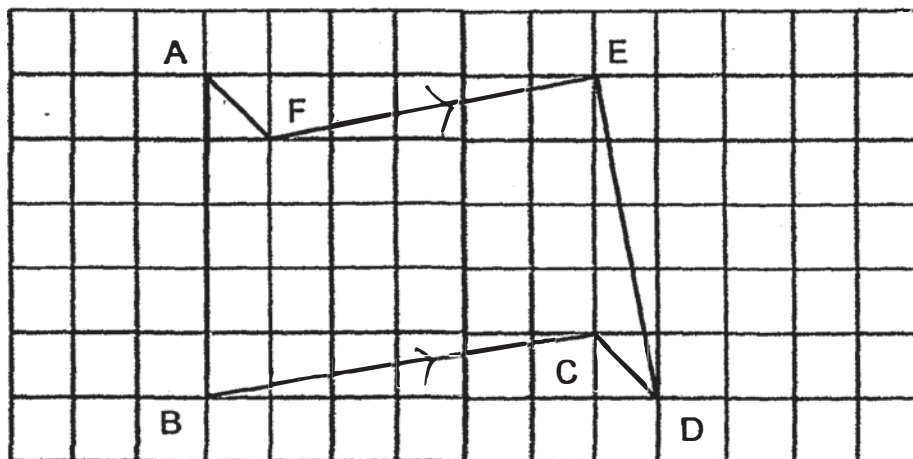
(4)  $3c + 6$

7. Mrs Lim exchanged a \$10 note for 20 coins. All the coins had the same value. What was the value of each coin?
- (1) 5 cents
  - (2) 10 cents
  - (3) 20 cents
  - (4) 50 cents
8. The pie chart below shows how Mrs Gomez spent her money at the supermarket last month. What was the ratio of the amount of money Mrs Gomez spent on meat to the amount of money she spent on fish?

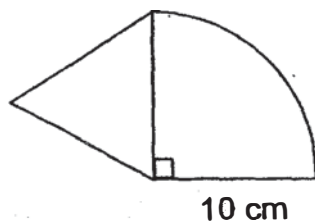


- (1) 5 : 3
- (2) 3 : 5
- (3) 2 : 3
- (4) 2 : 1

9. Which two lines in the figure below are parallel to each other?

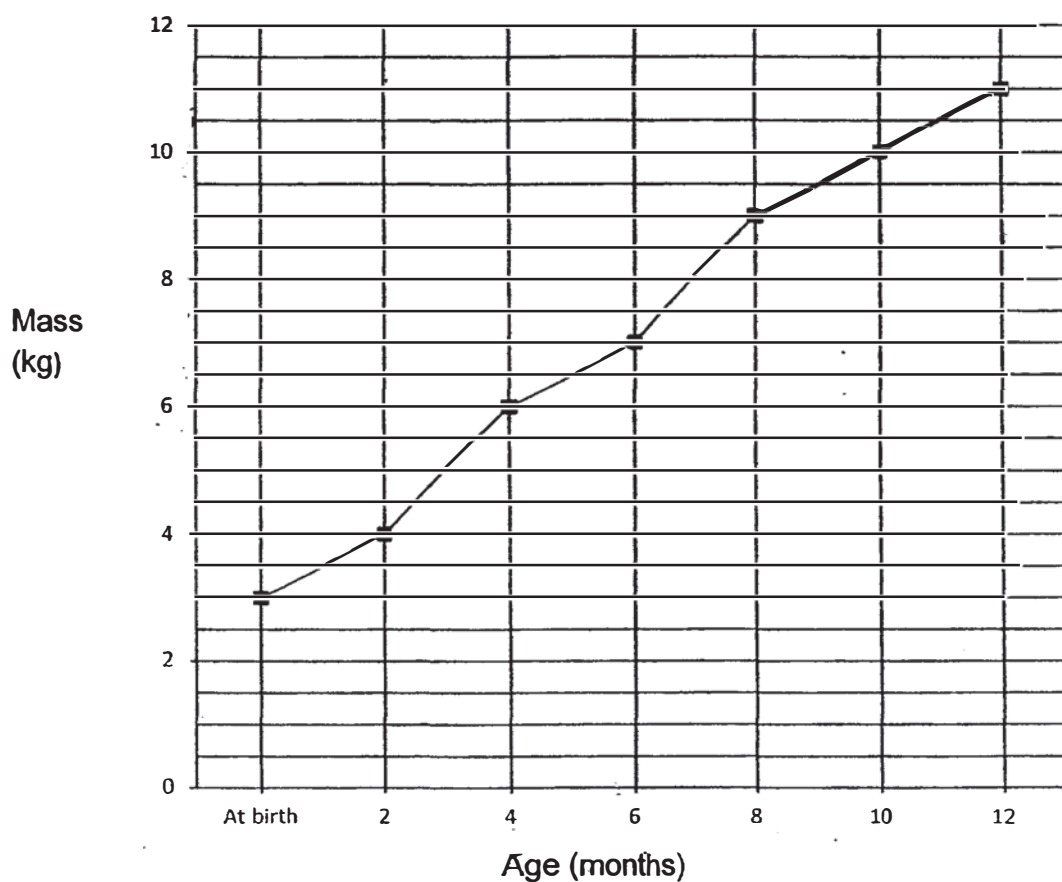


- (1) FE and BC  
 (2) AB and ED  
 (3) AF and ED  
 (4) AF and CD
10. The figure below is made up of an equilateral triangle and a quadrant. The radius of the quadrant is 10 cm. Find the perimeter of the figure. Leave your answer in terms of  $\pi$ .



- (1)  $(2.5\pi + 30)$  cm  
 (2)  $(5\pi + 30)$  cm  
 (3)  $(20\pi + 30)$  cm  
 (4)  $(25\pi + 30)$  cm

11. The line graph below shows Peter's mass from birth to his first birthday.



At what age was Peter's mass three times his mass at birth?

- (1) 10 months
- (2) 8 months
- (3) 6 months
- (4) 4 months

12. The average mass of Alice, Bella and Carol is 36 kg. Alice is 11 kg heavier than Bella and 7 kg heavier than Carol. What is the mass of Carol?

- (1) 31 kg
- (2) 35 kg
- (3) 37 kg
- (4) 42 kg

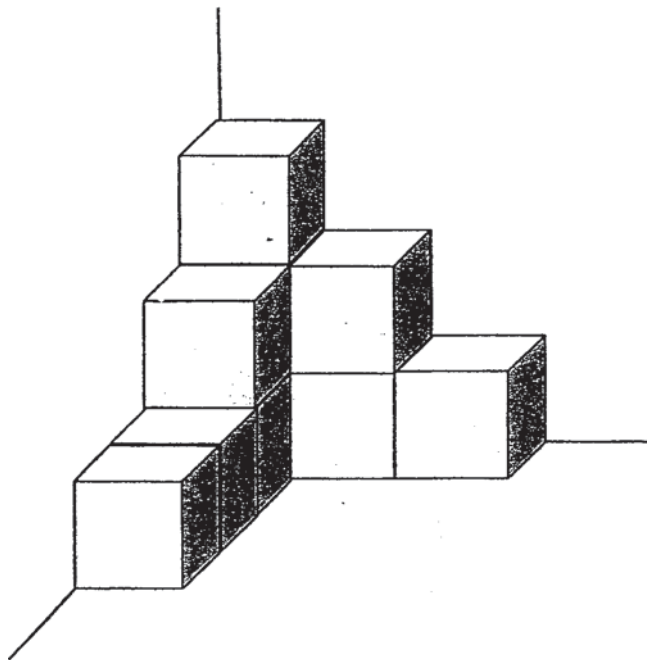
13. In April, Samy spent \$60 of his monthly allowance and saved the rest. In May, he increased his spending by 30% and as a result, his savings decreased by 20%. How much was his monthly allowance?

- (1) \$90
- (2) \$150
- (3) \$168
- (4) \$210

14. A bus can carry either 40 adults or 85 children. If there are already 24 adults and 13 children in the bus, how many more children can board the bus?

- (1) 21
- (2) 34
- (3) 48
- (4) 72

15. The solid below is made up of identical cubes that are glued together. What is the **least** number of such cubes that must be added to make the solid into a bigger cube?



- (1) 10
- (2) 17
- (3) 54
- (4) 57

- End of Booklet A -



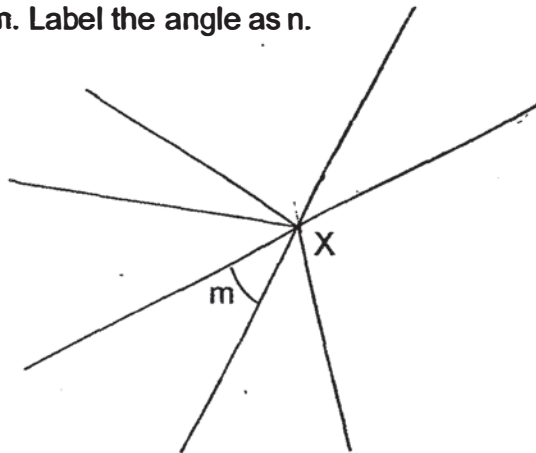
Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

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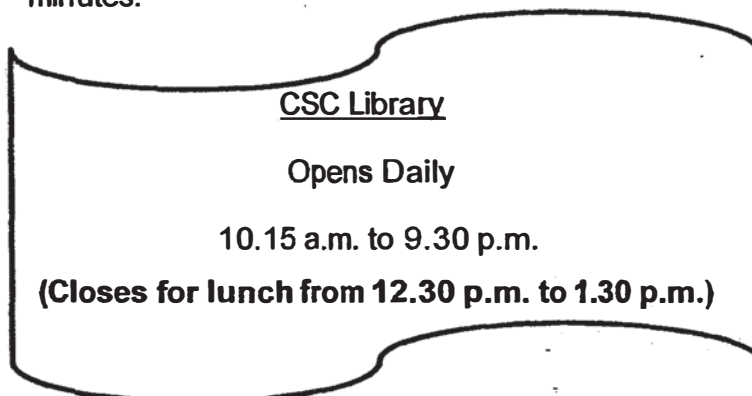
16. Find the value of  $\frac{6}{7} \div 42$ .

Ans : \_\_\_\_\_

17. The figure below shows angles at point X. Without using a protractor, draw another angle at X which is the same size as  $zm$ . Label the angle as  $n$ .

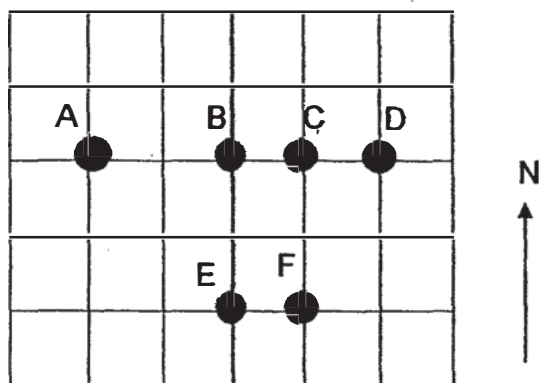


18. The opening hours of CSC Library are shown below. How long is the library open each day? Give your answer in hours and minutes.



Ans : \_\_\_\_\_ h \_\_\_\_\_ min

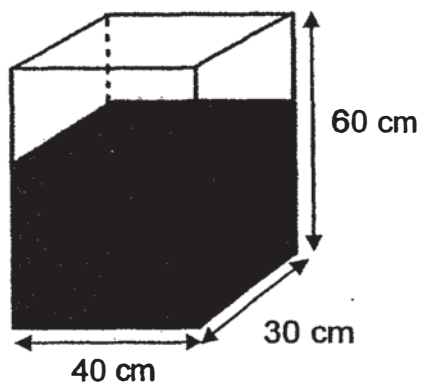
19. Study the square grid below.



Point \_\_\_\_\_ is northeast of Point \_\_\_\_\_.

Ans : \_\_\_\_\_ , \_\_\_\_\_

20. The rectangular tank below measures 40 cm by 30 cm by 60 cm. It is two-third filled with water. How much water is in the tank? (1  $\ell$  = 1000  $\text{cm}^3$ )



Ans : \_\_\_\_\_  $\ell$

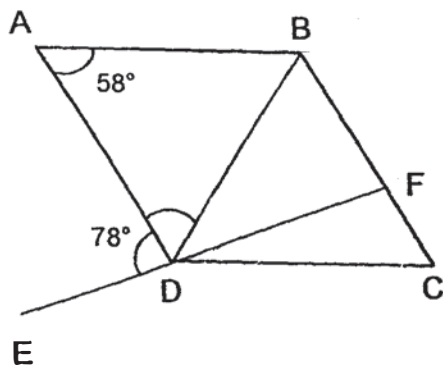
Questions 21 to 30 carry 2 marks each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

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in this space

21. Find the value of  $3y + \frac{5y}{8} - 8$  when  $y = 4$ . Give your answer as a mixed number in the simplest form.

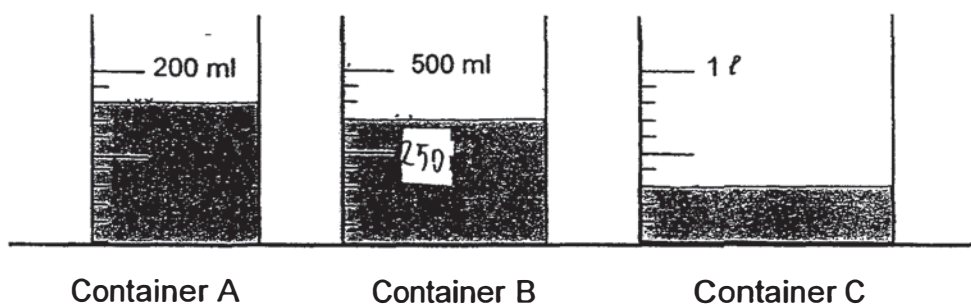
Ans : \_\_\_\_\_

22. In the figure, ABCD is a rhombus. EDF is a straight line.  $\angle BAD = 58^\circ$  and  $\angle ADE = 78^\circ$ . Find  $\angle FDC$ .

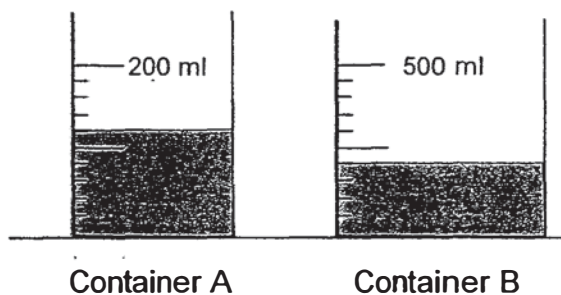


Ans : \_\_\_\_\_

23. At first, Containers A, B and C contained some water as shown below.



Then, Ali poured some water from Containers A and B into Container C without any spilling over. The amount of water left in Containers A and B is shown below.



What would be the amount of water in Container C in the end?

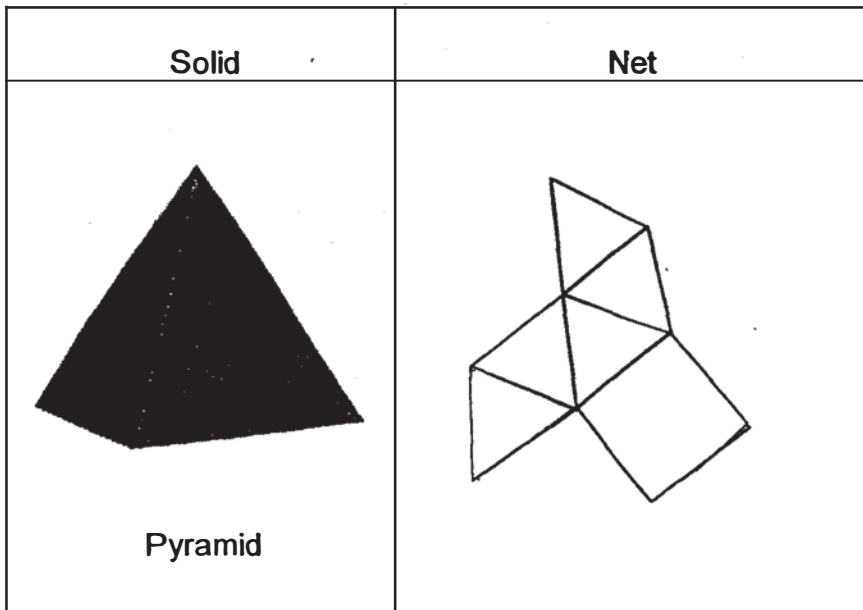
Ans : \_\_\_\_\_ ml

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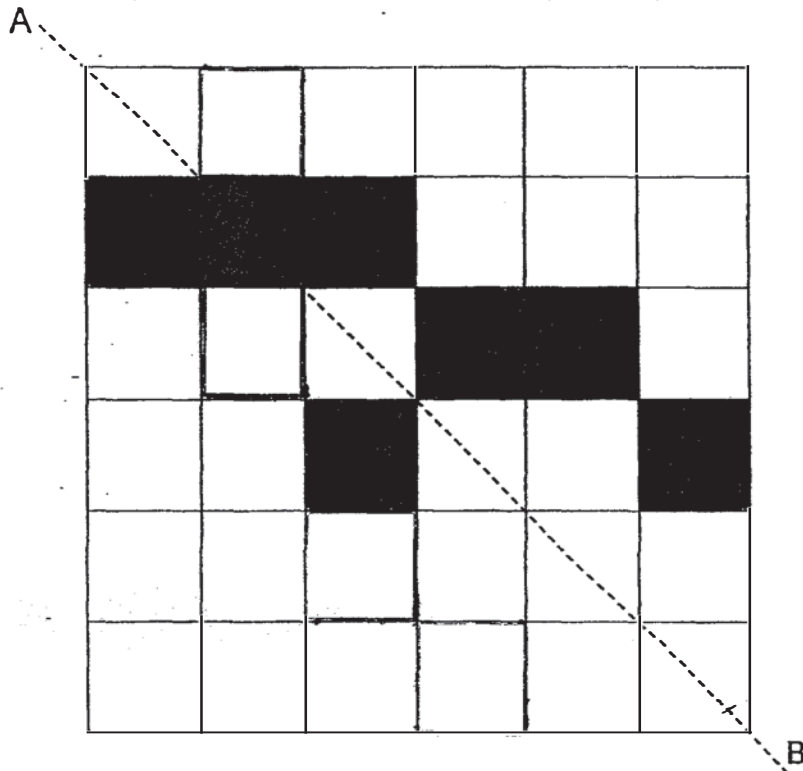


- 24a. The net drawn for the solid below is **incorrect**. Shade the face that **does not fit**.

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in this space

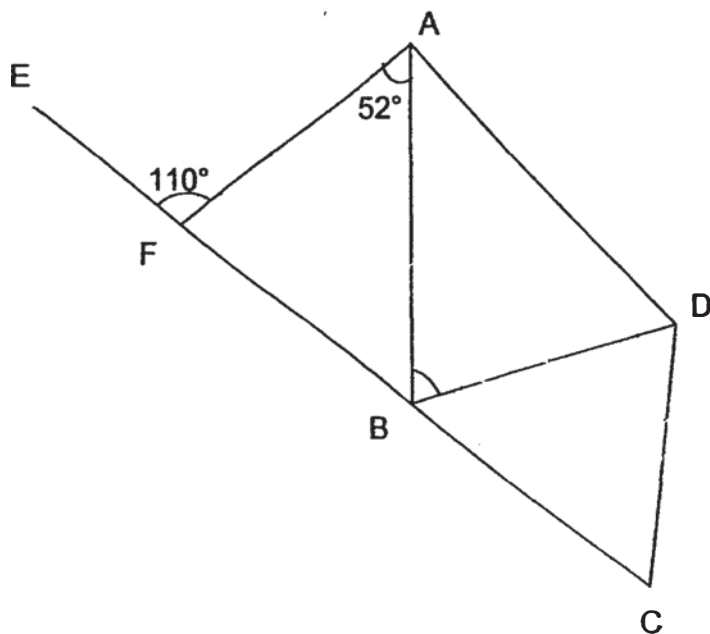


- 24b. In the figure below, shade the **least** number of squares to form a symmetrical pattern with AB as the line of symmetry.



25. In the figure, ABCD is a trapezium and BCD is an isosceles triangle.  $DB = DC$ ,  $\angle BAF = 52^\circ$  and  $\angle AFE = 110^\circ$ . Find  $\angle BDC$ .

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in this space



Ans : \_\_\_\_\_°

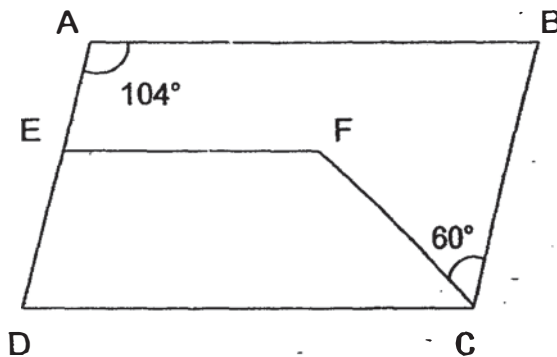


26. A group of boys shared some stamps among themselves. They tried taking 12 stamps each, but found that the last boy had only 7 stamps. When they tried taking 10 stamps each, they found that there were 25 stamps left over. How many stamps were there altogether?

Do not write  
in this space

Ans : \_\_\_\_\_

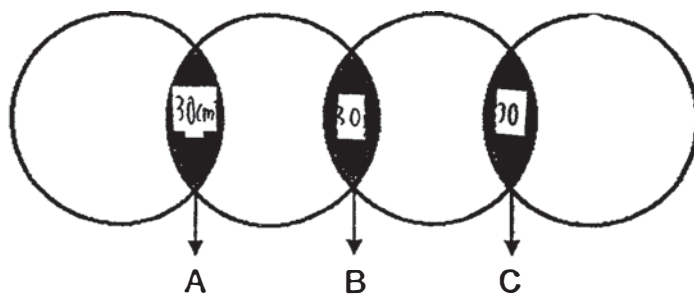
27. In the figure, ABCD is a parallelogram.  $AB \parallel EF \parallel DC$ .  
 $\angle BAE = 104^\circ$  and  $\angle BCF = 60^\circ$ . Find  $\angle EFC$ .



Ans : \_\_\_\_\_°

28. The figure below is made up of 4 identical circles, each with a radius of 7 cm. The circles overlap at the shaded parts A, B and C. The area of each shaded part is  $30 \text{ cm}^2$ . Find the total area of the **unshaded** parts. (Take  $\pi = \frac{22}{7}$ )

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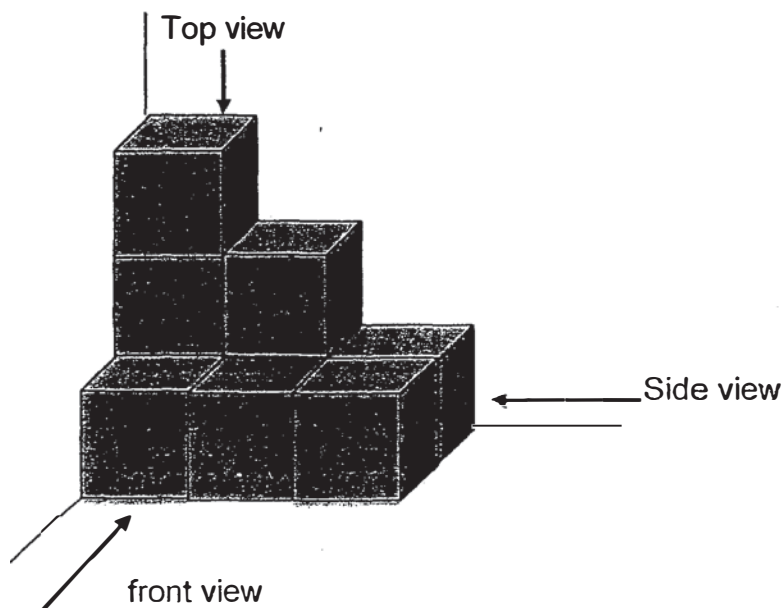
Ans : \_\_\_\_\_  $\text{cm}^2$



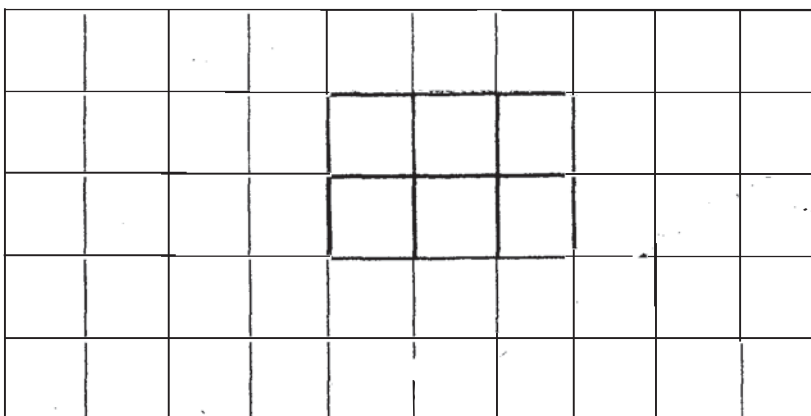


29. The solid below is made up of identical cubes. Draw the top view and front view of the solid in the square grids below.

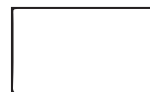
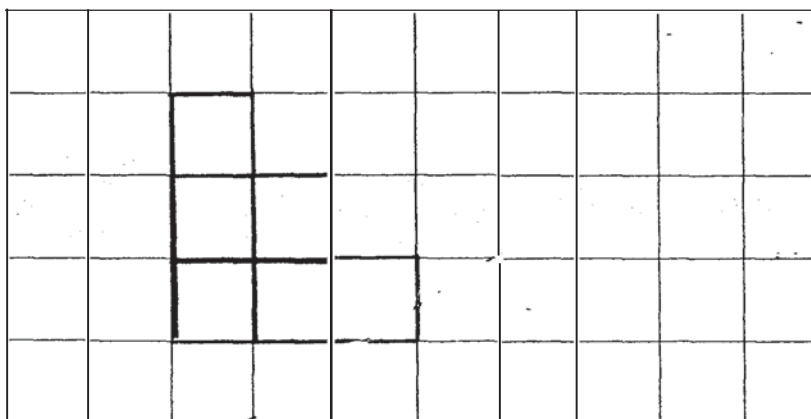
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**Top view**



**Front view**

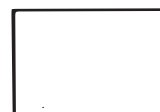


30. The average savings of a group of boys and girls is \$245. There is an equal number of boys and girls. The average savings of the boys is \$300.

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in this space

Each statement below is either true, false or not possible to tell from the information given above. For each statement, put one tick (✓) in the correct column.

Statement	True	False	Not possible to tell
Each boy saves more than each girl.			
The average savings of the girls is more than \$300.			



- End of Booklet B -

**RIVER VALLEY PRIMARY SCHOOL**  
**PRELIMINARY EXAMINATION**  
**2018**  
**MATHEMATICS**  
**PRIMARY SIX**

Date : 21 August 2018

Duration : 1 h 30 min

**PAPER 2**

**INSTRUCTIONS TO CANDIDATES**

1. Write your Name, Register No. and Class in the space above.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. You are **allowed** to use a calculator.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answer in the units stated. (10 marks)

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in this space

1. Shah spent  $\frac{2}{5}$  of his money while Harrison spent  $\frac{3}{8}$  of his money. Then they each had \$120 left. How much did the two boys have altogether at first?

Ans : \$ \_\_\_\_\_

2. The table below shows the number of tickets sold by 3 girls. Lisa sold half as many tickets as the total number of tickets sold by Jane and Kerry. Jane sold 38 tickets. How many tickets did Lisa sell?

Girls	Number of tickets sold
Jane	$3p + 8$
Kerry	$2p - 4$
Lisa	

Ans : \_\_\_\_\_

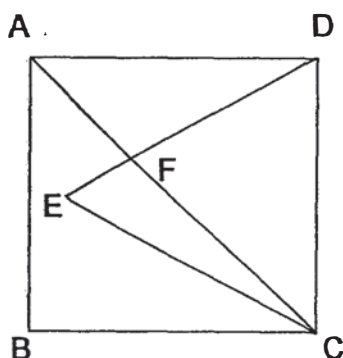
3. The average of 6 two-digit numbers shown below is 60. A digit from each of the last two numbers is missing. What are the last two numbers?

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58	46	77	62	6	7
----	----	----	----	---	---

Ans : \_\_\_\_\_ and \_\_\_\_\_

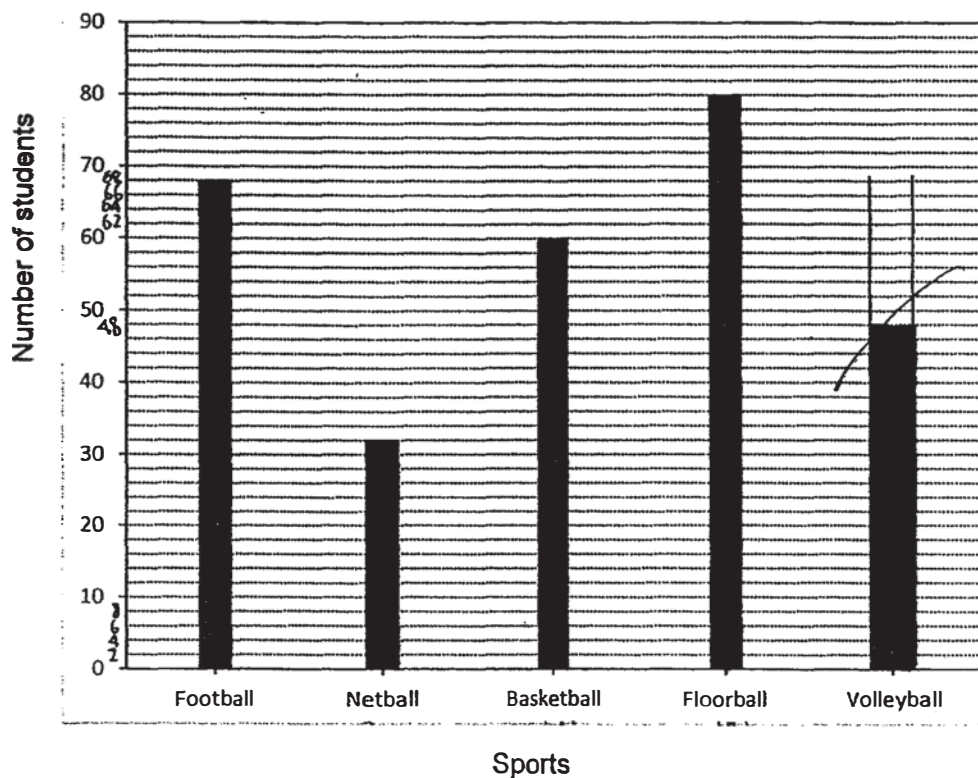
4. In the figure below, ABCD is a square. CED is an equilateral triangle and AFC is a straight line. Find  $\angle AFD$ .



Ans : \_\_\_\_\_°

5. The graph below shows the results of a survey on the favourite sports of a group of students.

Do not write  
in this space



$\frac{1}{6}$  of the students chose volleyball as their favourite sport.

Draw the bar in the graph to show the number of students who chose volleyball as their favourite sport.



For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(45 marks)

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6. Jane packs all her books into a suitcase and the total mass of her books and the suitcase is 59.4 kg. Rahim packs all his books into an identical suitcase and the total mass of his books and the suitcase is 20.1 kg. The mass of Jane's books is four times as heavy as that of Rahim's books. What is the mass of the empty suitcase?

Ans: \_\_\_\_\_ (3m)

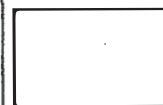
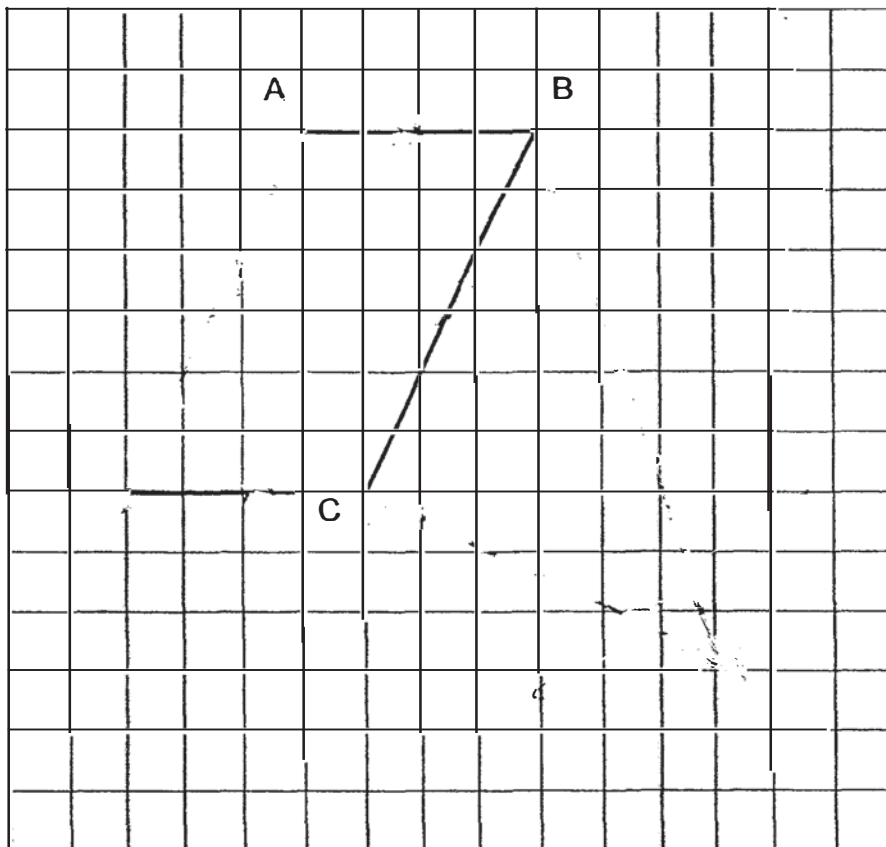
7. Alice and Peggy went shopping together with a total sum of \$105.50. The ratio of the amount of money Peggy spent to the amount Alice spent was 2 : 3. The amount of money Peggy had left was \$9 more than what she had spent. Alice had  $\frac{1}{2}$  as much money left as Peggy. How much money did Peggy have left?

Ans: \_\_\_\_\_ (3m)

8. In the square grid below, two sides of a parallelogram ABCD have been drawn.

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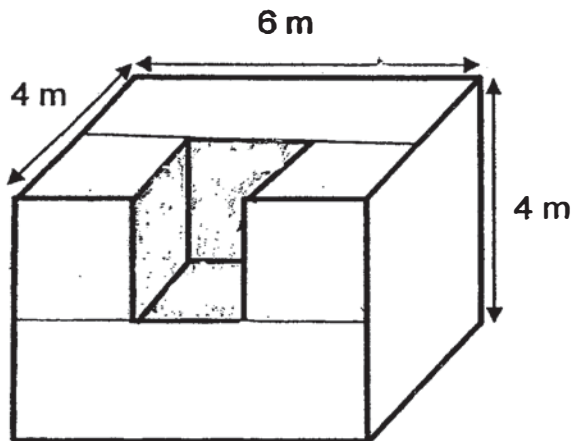
- (a) Complete the drawing of the parallelogram ABCD. Label your drawing. (1 mark)
- (b) BC also forms one side of a triangle BCE in which  $\angle BCE$  is a right angle and  $BC = CE$ . Complete the drawing of the triangle BCE within the grid. (2 marks)





9. A solid measures 6 m by 4 m by 4 m. A 2-m cube was cut out from the centre of the solid. The remaining solid is then completely dipped into a pail of red paint. What is the total area of the surfaces that are red?

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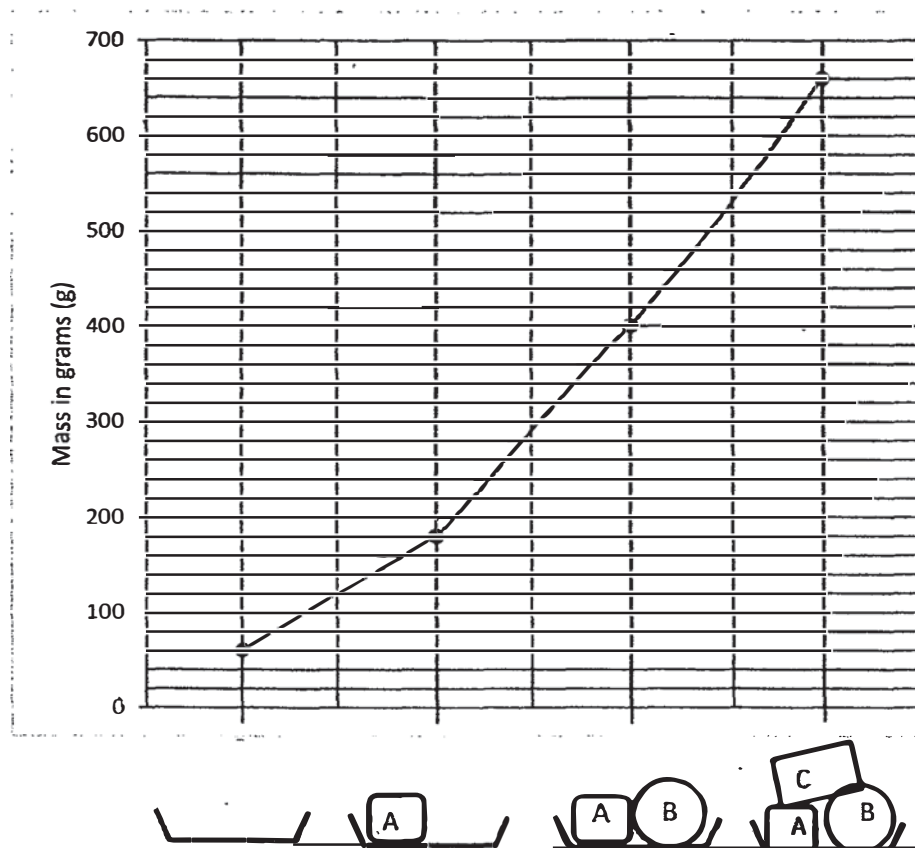


Ans: \_\_\_\_\_ (3m)



10. Three objects A, B and C were placed on a container, one after another. The line graph below shows the mass of the container when empty and the mass when different objects were placed on it.

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- (a) What is the mass of Object A?
- (b) Find the average mass of the three objects.

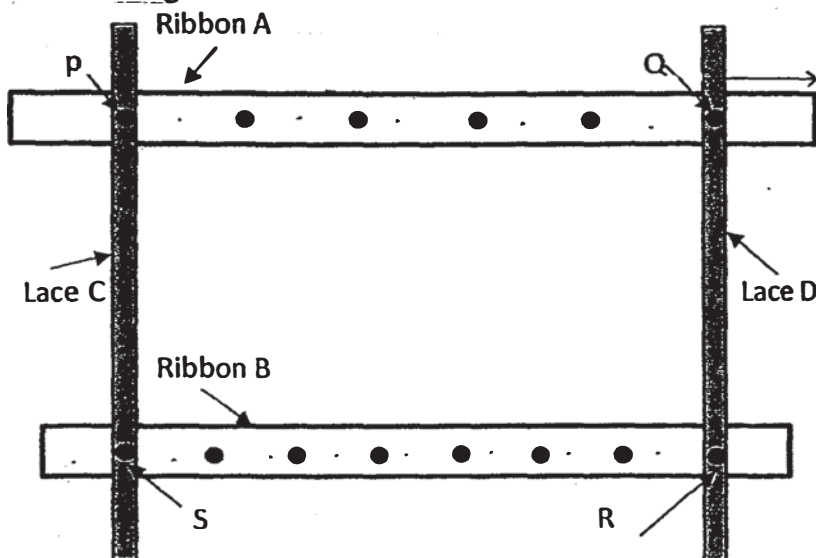
Ans: (a) \_\_\_\_\_ (1m)

(b) \_\_\_\_\_ (2m)



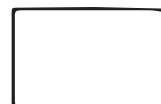
11. Two similar ribbons, A and B, of different lengths, and two similar laces C and D are sewn together to make a frame as shown below. There are 6 buttons on Ribbon A which divide the ribbon into 7 equal parts. There are 8 buttons on Ribbon B which divide it into 9 equal parts. In the frame, P, Q, R and S are buttons that are sewn on the four corners of a rectangle.

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Ribbon A is 294 cm long. Marisa wants to buy ribbons to make 3 such frames to give to the Senior's Home. The ribbons are sold in rolls of 9 m each. What is the minimum number of rolls of ribbon Marisa needs to buy?

Ans : \_\_\_\_\_ (3m)



12. Ben bought some large-sized, medium-sized and small-sized T-shirts to be sold in his shop. 40% of the T-shirts he bought were large-sized T-shirts. 60% of the remaining T-shirts were medium-sized and the rest were small-sized T-shirts.

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The price of each type of T-shirt is shown in the table below.

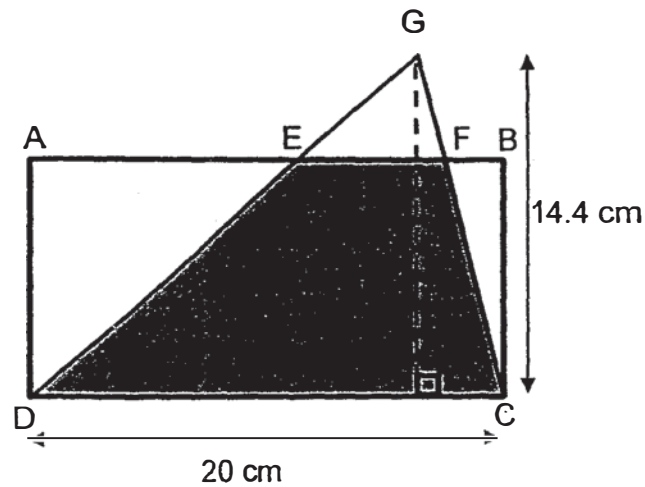
Types of T-shirts	Price per T-shirt
Large-sized	\$18
Medium-sized	\$10
Small-sized	\$8

He paid \$672 more for the medium-size T-shirts than the small-sized T-shirts. How much did he pay for the large-sized T-shirts?

Ans : \_\_\_\_\_ (4m)

13. In the figure, ABCD is a rectangle. DC = 20 cm and the height of the triangle GDC is 14.4 cm. The area of the shaded part EFCD is  $\frac{5}{6}$  of the area of triangle GDC. The ratio of the shaded part to the area of the rectangle is 3 : 5.

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- (a) What is the area of the shaded part?  
(b) What is the length of AD?

Ans : (a) \_\_\_\_\_ (2m)  
(b) \_\_\_\_\_ (2m)



14. Alan and Benny took part in a charity race which started at 8.00 a.m. Alan's speed was 60 m/min slower than Benny's speed. Both boys did not change their speeds throughout the race. When Benny completed the race at 8.40 a.m., Alan only covered  $\frac{3}{5}$  of the distance.

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(a) What was the total distance of the race?

(b) What was Alan's speed in m/min?

Ans : (a) \_\_\_\_\_ (2m)

(b) \_\_\_\_\_ (2m)



15. Jason bought some bookmarks and gave half of them to Kelvin. Kelvin bought some stickers and gave half of them to Jason.

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Then Jason gave 7 bookmarks to his sister and found that he had  $\frac{1}{9}$  as many bookmarks as stickers left. Kelvin gave 12 stickers to his younger brother and found that he had  $\frac{1}{6}$  as many bookmarks as stickers left.

- (a) How many stickers did Kelvin have in the end?  
(b) How many bookmarks did Jason buy?

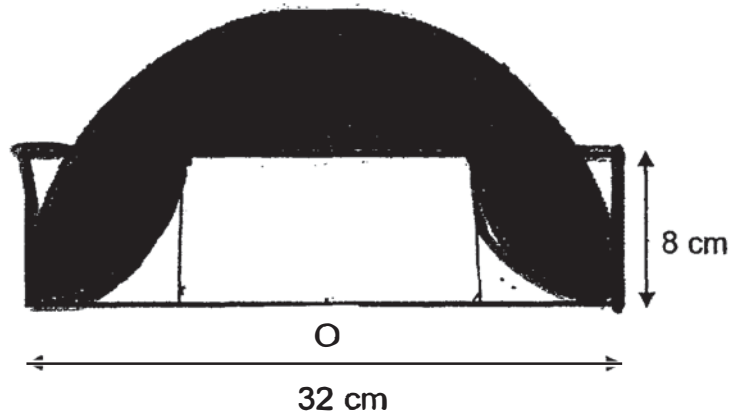
Ans : (a) \_\_\_\_\_ (3m)

(b) \_\_\_\_\_ (2m)



16. The figure below is made up of a semi-circle, 2 small quadrants and a rectangle. O is the centre of the semi-circle. The diameter of the semi-circle is 32 cm and the radius of each quadrant is 8 cm. Find the area of the shaded parts. (Take  $\pi = 3.14$ )

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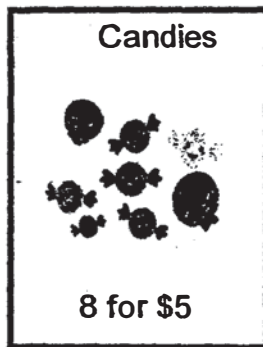


Ans : \_\_\_\_\_ (5m)





17. At a supermarket, the prices of lollipops and candies are shown below.



Do not write  
in this space

If Govin uses  $\frac{2}{5}$  of his allowance to buy only lollipops or candies, he will be able to buy 98 more candies than lollipops.

- (a) How many candies will Govin be able to buy with  $\frac{2}{5}$  of his allowance?
- (b) How much is Govin's allowance?

Ans : (a) \_\_\_\_\_ (3m)

(b) \_\_\_\_\_ (2m)

- End of Paper 2 -



**EXAM PAPER 2018**

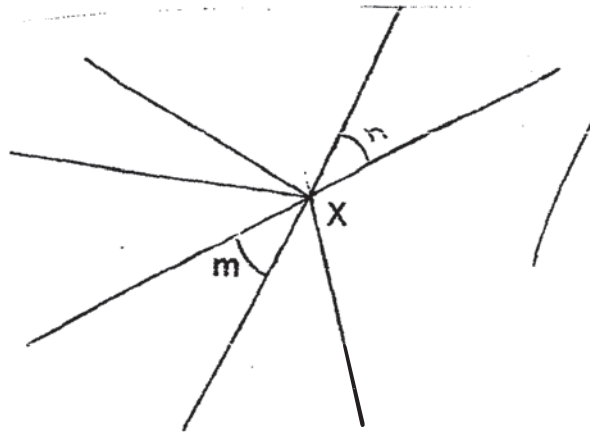
**LEVEL : PRIMARY 6**  
**SCHOOL : RIVER VALLEY PRIMARY SCHOOL**  
**SUBJECT : MATHEMATICS**  
**TERM : PRELIM**

**BOOKLET A**

Q1	Q2	Q3	Q4	Q5	Q6	Q7
4	3	3	2	3	2	4
Q8	Q9	Q10	Q11	Q12	Q13	Q14
2	4	2	2	2	2	1
Q15						
3						

Q16.  $\frac{1}{49}$

Q17.



Q18. 10h 15min

Q19. D, E

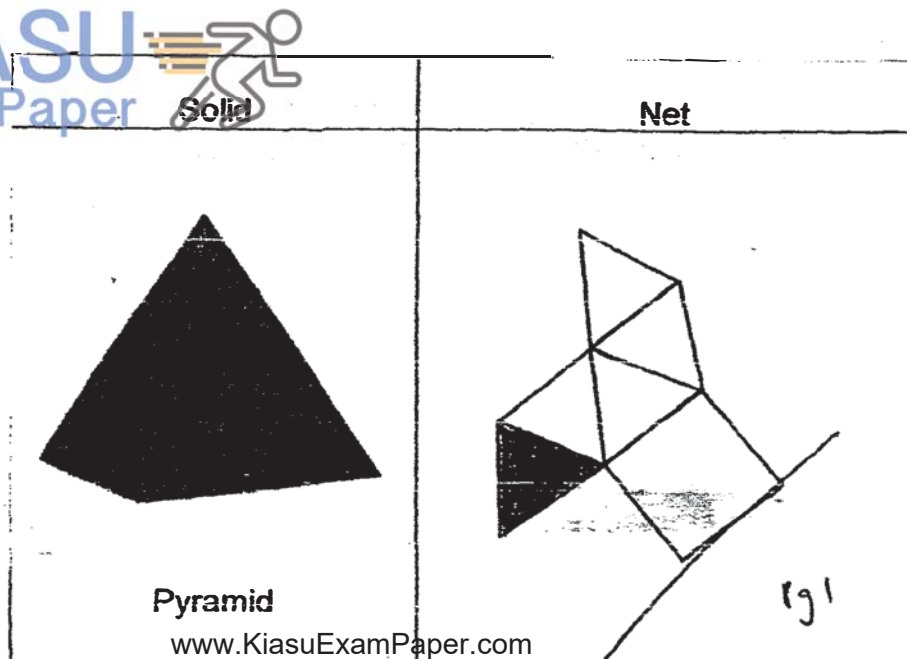
Q20. 48l

Q21.  $6\frac{1}{2}$

Q22. 20°

Q23. 490ml

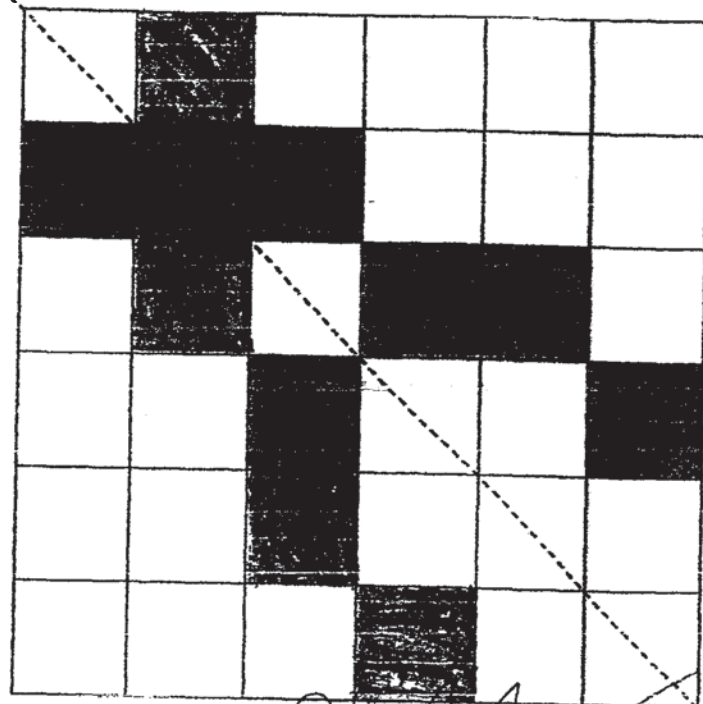
Q24. (a)



Pyramid

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(b)



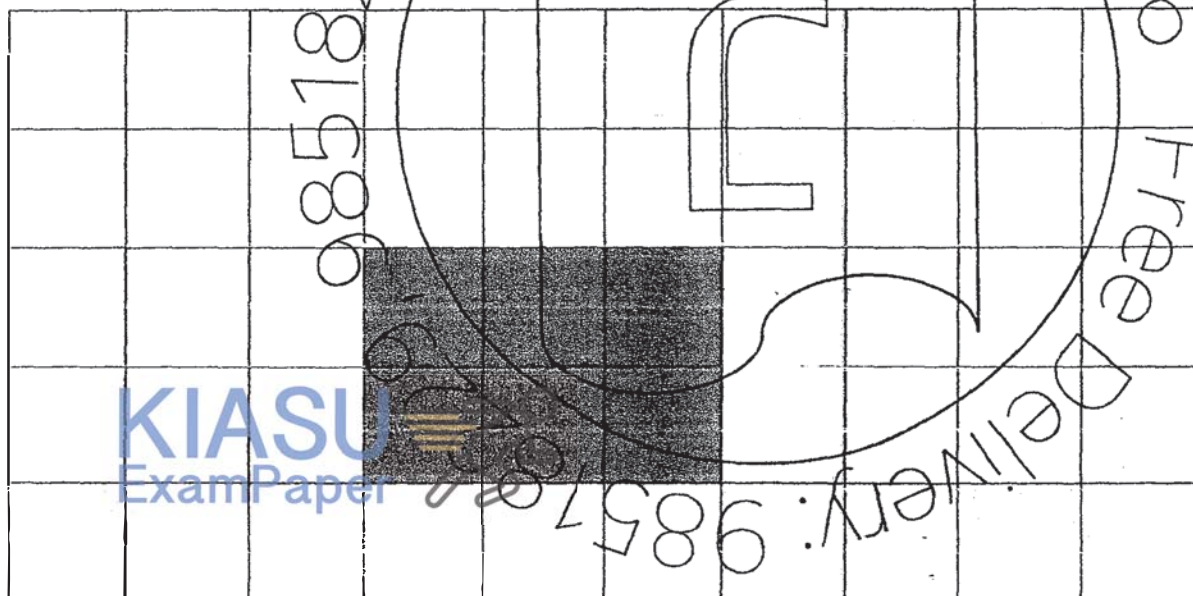
Q25.  $64^\circ$

Q26. 175

Q27.  $136^\circ$

Q28.  $436\text{cm}^2$

Q29.




Q30.

Statement	True	False	Not possible to tell
Each boy saves more than each girl			✓
The average savings of the girls is more than \$300		✓	

**Q1.** Amt. of money Shah has =  $\$120 \times \frac{5}{3}$   
 $= \$200$

Amt. of money Harrison has =  $\$120 \times \frac{8}{5}$   
 $= \$192$

Total =  $200 + 192$   
 $= \$392$

**Q2.**  $3p + 8 = 38$

$3p = 30$

$p = 10$

Kerry =  $(10 \times 2) - 4$   
 $= 16$

Lisa =  $(16 + 38) \div 2$   
 $= 27$  tickets

**Q3.** Total =  $6 \times 60$   
 $= 360$

$360 - 58 - 46 - 77 - 62 = 117$

$117 - 60 = 57$

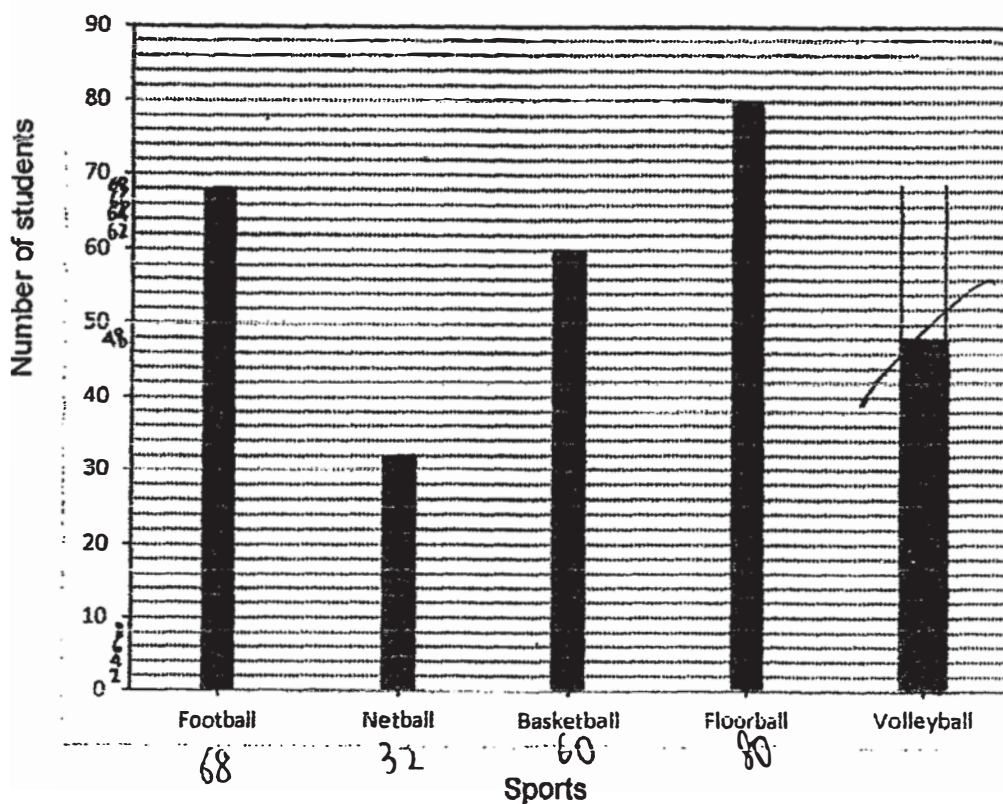
Ans: 60 and 57

**Q4.** Angle CAD =  $90^\circ \div 2$   
 $= 45^\circ$

Angle ADF =  $90^\circ - 60^\circ$   
 $= 30^\circ$

Angle AFD =  $180^\circ - 45^\circ - 30^\circ$   
 $= 105^\circ$

Q5.



Q6. Let the mass of Rahim's books and the suitcase be  $p$  and  $s$  respectively,

$$4p + s = 59.4$$

$$p + s = 20.1$$

$$4p + 4s = 80.4$$

$$(4p + 4s) - (4p + s) = 80.4 - 59.4$$

$$3s = 21$$

$$s = 7\text{kg}$$

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ExamPaper



Q7. Spent:

Peggy : Alice

$$2u : 3u$$

Left:

Peggy : Alice

$$2u+9 : 1u+4.50$$

$$\text{Total} = 8u + 13.50$$

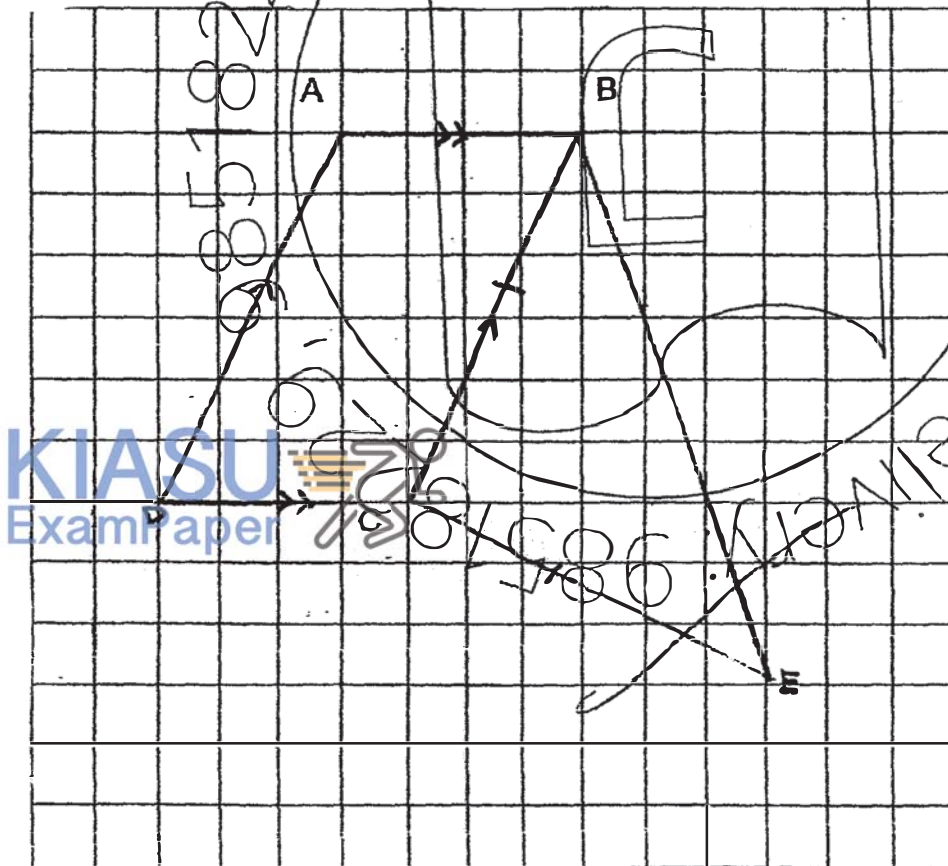
$$8u + 13.50 = 105.50$$

$$8u = 92$$

$$1u = 11.50$$

$$\begin{aligned}\text{Amt. Peggy had left} &= 2u + 9 \\ &= 2(11.50) + 9 \\ &= \$32\end{aligned}$$

Q8.





**Q9. Total area =  $(8 \times 2 \times 2) + (2 \times 6 \times 2) + (2 \times 4 \times 4) + (2 \times 6 \times 4)$   
 $= 136\text{m}^2$**

**Q10. (a)  $180 - 60 = 120\text{g}$**

**(b) Mass of B =  $400 - 120 - 60$   
 $= 220\text{g}$**

**Mass of C =  $660 - 120 - 220 - 60$   
 $= 260\text{g}$**

**Average mass =  $(120 + 220 + 260) \div 3$   
 $= 200\text{g}$**

**Q11.  $294 \div 7 = 42$**

**$42 \times 5 = 210$**

**Length of B =  $210 \div 7 \times 9$**

**$= 270\text{cm}$**

**Total length required =  $3 \times (270 + 294)$   
 $= 1692\text{cm}$**

**$1692 \div 900 = 1 \text{ roll} + 792\text{cm}$**

**Ans: 2 rolls**

**Q12. L : M : S**

**40:36:24**

**10:9:6**

	Amount	Value	Total
<b>L</b>	<b>10u</b>	<b>18</b>	<b>180u</b>
<b>M</b>	<b>9u</b>	<b>10</b>	<b>90u</b>
<b>S</b>	<b>6u</b>	<b>8</b>	<b>48u</b>

$$90u - 48u = 42u$$

$$42u = 672$$

$$1u = 16$$

$$180 \times \$16 = \$2880$$

**Q13. (a)** Area of GDS =  $14.4 \times 20 \times \frac{1}{2}$   
 $= 144\text{cm}^2$

Area of shaded part =  $144 \times \frac{5}{6}$   
 $= 120\text{cm}^2$

**(b)** Area of rectangle =  $120 \div 3 \times 5$   
 $= 200\text{cm}^2$

**AD** =  $200 \div 20$   
 $= 10\text{cm}^2$

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**Q14. (a)**  $\frac{2}{5}$  of total distance =  $40 \times 60$   
= 2400m

**Total distance** =  $2400 \div 2 \times 5$   
= 6000m

**(b)** **Benny's speed** =  $6000 \div 40$   
= 150m/min

**Alan's speed** =  $150 - 60$   
= 90m/min



Q15. Let the number of bookmarks Jason has and the number of stickers Kelvin had at first be B and S respectively,

Jason	Kelvin
B	S
$(-\frac{1}{2}B)$	$(+\frac{1}{2}B)$
$\frac{1}{2}B$	$S + \frac{1}{2}B$
$(+\frac{1}{2}S)$	$(-\frac{1}{2}S)$
$\frac{1}{2}B + \frac{1}{2}S$	$\frac{1}{2}B + \frac{1}{2}S$
-7 bookmarks	-12 stickers
$\frac{1}{2}B + \frac{1}{2}S - 7$	$\frac{1}{2}B + \frac{1}{2}S - 12$

(a)  $\frac{1}{2}S \times \frac{1}{9} = \frac{1}{2}B - 7$

$\frac{1}{18}S = \frac{1}{2}B - 7 \rightarrow \text{Equation 1}$

$(\frac{1}{2}S - 12) \times \frac{1}{6} = \frac{1}{2}B$

$\frac{1}{12}S - 2 = \frac{1}{2}B \rightarrow \text{Equation 2}$

Subtracting equation 1 from equation 2,

$\frac{1}{36}S - 2 = 7$

$\frac{1}{36}S = 9$

$S = 324$

(b) Substitute  $S = 324$  into equation 2,

$\frac{1}{2}B = 25$

$B = 50$

**Q16. Area of rectangle =  $8 \times 16$**

$$= 128\text{cm}^2$$

**Area of semi-circle =  $\frac{1}{2} \times 16 \times 16 \times 3.14$**

$$= 401.92\text{cm}^2$$

**Area of quadrant =  $\frac{1}{2} \times 8 \times 8 \times 3.14$**

$$= 50.24\text{cm}^2$$

$$8 \times 8 = 64\text{cm}^2$$

$$64 - 50.24 = 13.76\text{cm}^2$$

**Area of shaded area =  $401.92 - 13.76 - 13.76 - 128$**

$$= 246.4\text{cm}^2$$

**Q17. (a) Lollipops =  $20 \div 4 \times 5$**

$$= 25$$

**Candies =  $20 \div 5 \times 8$**

$$= 32$$

**Difference =  $32 - 25$**

$$= 7$$

$$98 \div 7 = 14 \text{ sets}$$

$$14 \times 32 = 448 \text{ candies}$$

**(b)  $14 \times 20 = 280$**

**$\frac{2}{5}$  of Govin's allowance = \$280**

**Govin's allowance =  $280 \div 2 \times 5$**

$$= \$700$$

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ExamPaper

END.





**RAFFLES GIRLS' PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1  
MATHEMATICS (PAPER 1)  
PRIMARY 6**

Name: \_\_\_\_\_ (      )

Form Class: P6 \_\_\_\_\_

Math Teacher: \_\_\_\_\_

Date: 7 May 2018

Duration: 1 hour

<b>Your Paper 1 Score (Out of 45 marks)</b>	
<b>Your Paper 2 Score (Out of 55 marks)</b>	
<b>Your Total Score (Out of 100 marks)</b>	
<b>Parent's Signature</b>	

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. **NO** calculator is allowed for this paper.





Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4). Shade your answer (1, 2, 3 or 4) on the OAS provided.  
All diagrams are not drawn to scale.

1. Express  $4\frac{4}{5}$  as a decimal.

- (1) 4.40
- (2) 4.45
- (3) 4.54
- (4) 4.80

2.  $208\,709 = 200\,000 + \underline{\hspace{2cm}} + 700 + 9$

- (1) 80 000
- (2) 8000
- (3) 800
- (4) 80

3. What is the missing fraction in the box?

$$\frac{13}{6} + \frac{2}{3} = \boxed{\phantom{00}}$$

- (1)  $1\frac{2}{3}$
- (2)  $1\frac{5}{9}$
- (3)  $2\frac{1}{2}$
- (4)  $2\frac{5}{6}$

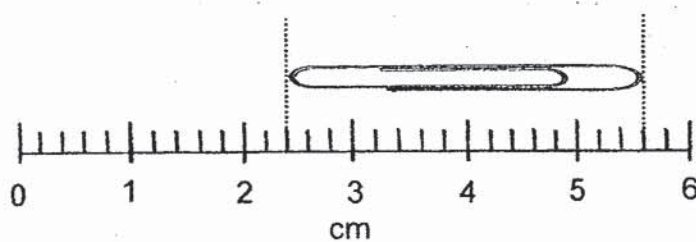
4. A durian is  $2\frac{1}{4}$  times as heavy as an apple.  
What is the ratio of the mass of the durian to the mass of the apple?

- (1) 7 : 4
- (2) 4 : 7
- (3) 9 : 4
- (4) 4 : 9

5. Find the value of  $x + \frac{x}{5}$  when  $x = 5$ .

- (1) 10
- (2) 6
- (3) 5
- (4)  $1\frac{1}{5}$

6. What is the length of the paper clip shown below?



- (1) 1.6 cm
- (2) 2.4 cm
- (3) 3.2 cm
- (4) 5.6 cm

7.

Arrange the following fractions from the largest to the smallest.

$$\frac{4}{7}, \frac{2}{3}, \frac{5}{6}$$

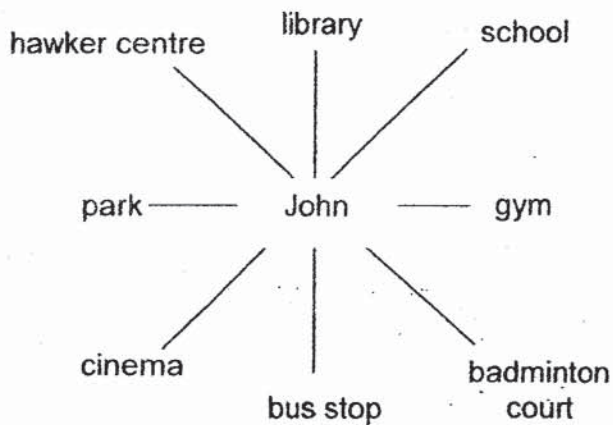
(1)  $\frac{5}{6}, \frac{2}{3}, \frac{4}{7}$

(2)  $\frac{2}{3}, \frac{4}{7}, \frac{5}{6}$

(3)  $\frac{4}{7}, \frac{2}{3}, \frac{5}{6}$

(4)  $\frac{5}{6}, \frac{4}{7}, \frac{2}{3}$

8.



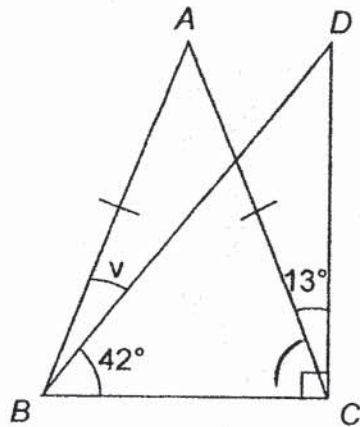
John is facing the school. After he turns  $135^\circ$  anti-clockwise, he will be facing the \_\_\_\_\_.

- (1) park
- (2) cinema
- (3) bus stop
- (4) badminton court

9. Express  $\frac{1}{25}$  as a percentage.

- (1) 0.25 %
- (2) 4 %
- (3) 25 %
- (4) 40 %

10. ABC is an isosceles triangle. DBC is a right-angled triangle. Find  $\angle v$ .

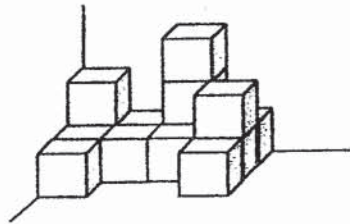


- (1)  $35^\circ$
- (2)  $48^\circ$
- (3)  $55^\circ$
- (4)  $77^\circ$

11. A shop sells 3 pens for \$2 and 5 pencils for \$3. John bought an equal number of pens and pencils. What was the least amount he could have spent?

- (1) \$6
- (2) \$15
- (3) \$19
- (4) \$21

12. The figure is made up of 1-cm cubes. Rajah wants to form a cube of sides 4 cm. How many more 1-cm cubes does he need?



- (1) 14
- (2) 16
- (3) 50
- (4) 64

13. Xiao Ming had the same number of 20-cent and 50-cent coins. He had a total of \$14.70. What was the total value of all the 20-cent coins?
- (1) \$4.20
  - (2) \$6.30
  - (3) \$10.50
  - (4) \$21.00
14. Mrs Tan spent 5% of her salary on transport and 40% of the remaining salary on household expenses. What percentage of her salary was left?
- (1) 38 %
  - (2) 43 %
  - (3) 55 %
  - (4) 57 %
15. In a book fair, the ratio of the number of comic books to the number of magazines was 5 : 7. After selling 12 comic books to the shoppers, the ratio of the number of comic books left to the number of magazines left was 3 : 5. How many magazines were there in the end?
- (1) 63
  - (2) 75
  - (3) 105
  - (4) 168

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale.

---

16. Evaluate  $40 \div 2 \times 10 + 5$

Ans: \_\_\_\_\_

17. A box of markers cost \$9.60. Mrs Tan bought 78 boxes of markers.  
How much did she pay altogether?

Ans: \$ \_\_\_\_\_

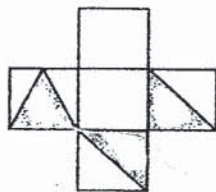
18. Find the value of  $13 - 2.87$

Ans: \_\_\_\_\_

19. The subway trains depart at intervals of 15 minutes. Find the time of departure of the fifth train if the first train departs at 4.15 p.m.

Ans: \_\_\_\_\_ p.m.

20. The figure is made up of 5 squares. What fraction of the figure is shaded?



Ans: \_\_\_\_\_



Questions 21 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale.

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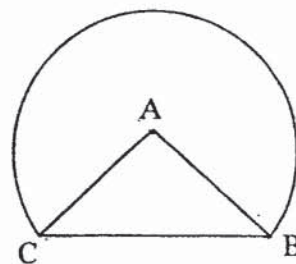
21. John spends  $\$ \frac{y}{7}$  everyday on food. How much does he spend on food in 2 weeks?

Ans: \$ \_\_\_\_\_

22. Josh is  $1\frac{7}{10}$  m tall. He is  $\frac{3}{5}$  m taller than Kristen. What is their total height? Leave your answer in the simplest form.

Ans: \_\_\_\_\_ m

23. The figure shows a  $\frac{3}{4}$  circle of diameter 14 cm. A is the centre of the circle. Find the area of triangle ABC.



Ans: \_\_\_\_\_ cm<sup>2</sup>

24. The average of 4 numbers was 21. When a number was added, the average became 23. What was the value of the number added?

Ans: \_\_\_\_\_

25. Terry started cycling from Town A to Town B at noon. At the same time, Jim started cycling from Town B to Town A. They met each other at 2 p.m. The speed of Terry is twice as fast as Jim. Given that the distance between Town A and Town B is 45 km, find Jim's speed.

Ans: \_\_\_\_\_ km/h

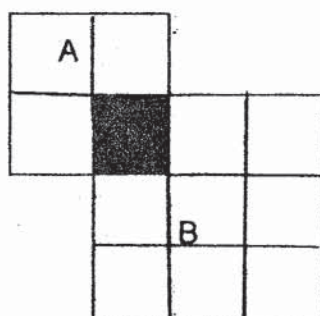
26. It takes 3 men to paint a block of flats completely in 22 days. Each man takes equal number of days to paint a block of flats. How many days will it take 2 men to paint 3 similar block of flats completely?

Ans: \_\_\_\_\_

27. A container has a mass of 3.8 kg when it is  $\frac{3}{5}$  filled with water. Its mass becomes 3.3 kg when it is  $\frac{1}{2}$  filled with water. What is the mass of the empty container?

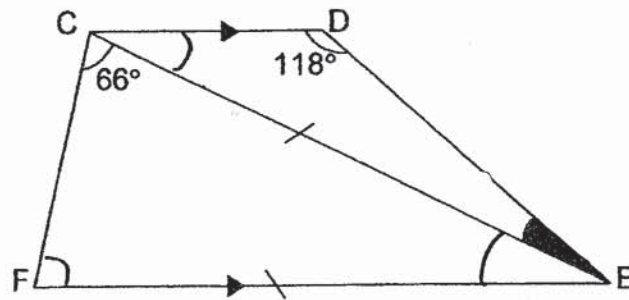
Ans: \_\_\_\_\_ kg

28. The figure is made up of 2 squares, A and B.  $\frac{1}{4}$  of A is shaded and  $\frac{1}{9}$  of B is shaded. The area of the shaded part is  $5 \text{ cm}^2$ . Find the area of the figure.



Ans: \_\_\_\_\_  $\text{cm}^2$

29. The figure shows a trapezium CDEF and an isosceles triangle CEF. Find  $\angle CED$ .



Ans: \_\_\_\_\_°

30. Mdm Goh had 6 kg of sugar. She wanted to repack the sugar into identical packets. Each packet has a mass of  $\frac{4}{5}$  kg.

Based on the information above, put a tick in the correct box.

	True	False	Impossible to tell
a) Mdm Goh had 8 packets of $\frac{4}{5}$ kg of sugar after repacking.			
b) If Mdm Goh had 8 kg of sugar, she would be able to repack all the sugar into identical packets of $\frac{4}{5}$ kg without any remainder.			

**End of Paper**

☺ Please check your work carefully ☺



**RAFFLES GIRLS' PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1  
MATHEMATICS (PAPER 2)  
PRIMARY 6**

Name: \_\_\_\_\_ (    )

Form class: P6 \_\_\_\_\_

Math Teacher: \_\_\_\_\_

Date: 7 May 2018

Duration: 1 h 30 min

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. The use of calculator is allowed for this paper.

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. (10 marks)

---

1. Ann has  $x$  stickers. Betty has  $(x + 5)$  more stickers than Ann. How many stickers do they have altogether?

Ans : \_\_\_\_\_ [2]

2. What is the price of the chandelier after the discount?



Usual price : \$568

Discount : 15 %

Ans : \$ \_\_\_\_\_ [2]



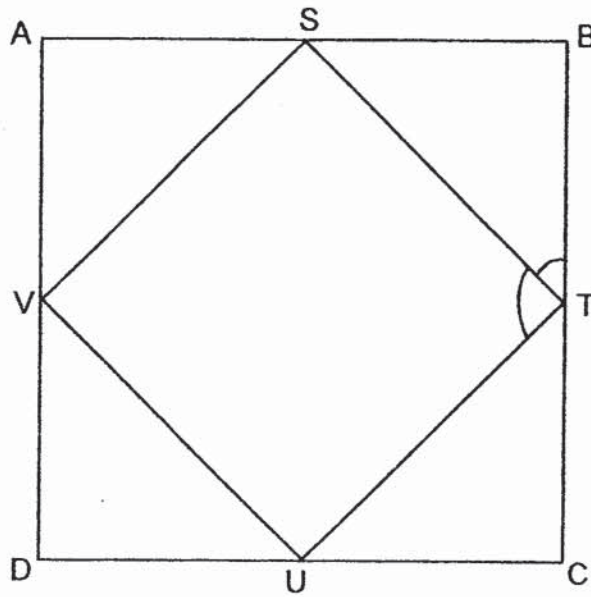
3. Mrs Wong sold  $\frac{1}{4}$  of her chicken pies in the morning. She sold another 36 chicken pies in the afternoon. If the ratio of the total number of chicken pies sold to the number of chicken pies left was the same, how many chicken pies did she have at first?

Ans : \_\_\_\_\_ [2]

4. Kim bought 3 soccer balls for \$90. She also bought an equal number of identical volley balls but at a different price. The average price of all the balls she bought was \$26. What was the price of each volleyball?

Ans : \$ \_\_\_\_\_ [2]

5. ABCD is a square and STUV are midpoints of AB, BC, CD and DA respectively. Find  $\angle BTU$ .



Ans: \_\_\_\_\_ [2]

For questions 6 to 17, show your working clearly in the space provided for each question and write your answers in the spaces provided.  
The number of marks available is shown in brackets [ ] at the end of each question or part-question. All diagrams are not drawn to scale.

(45 marks)

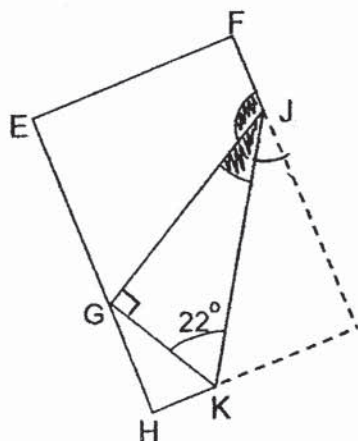
- 
6. The cost of admission tickets for 2 adults and 3 children to Curo Theme Park is \$183. The cost of admission tickets for 3 adults and 2 children is \$192. What is the cost of 1 adult ticket?

Ans: \_\_\_\_\_ [3]

7. Fathin receives \$0.80 more pocket money than Halim every day. Each of them spends \$1.40 a day and saves the rest of their pocket money. If Halim saves \$50 and Fathin saves \$90, how much pocket money does Halim receive for a day?

Ans: \_\_\_\_\_ [3]

8. EFGH is a rectangular piece of paper folded along JK.  $\angle JKG = 22^\circ$ .

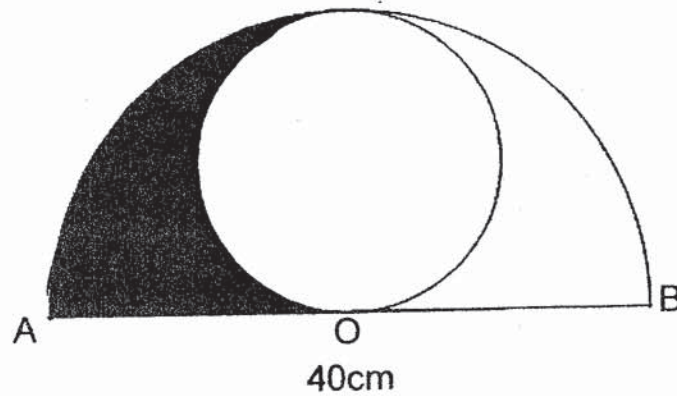


- (a) Find  $\angle GJK$ .  
 (b) Find  $\angle GJF$ .

Ans: a) \_\_\_\_\_ [1]

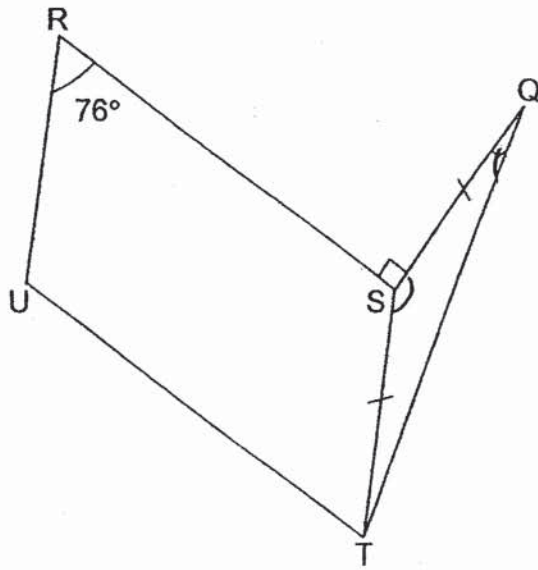
b) \_\_\_\_\_ [2]

9. The figure is made up of a circle and a semicircle. O is the centre of the semicircle. Given that the length of AOB is 40 cm, find the perimeter of the shaded part.  
Take  $\pi = 3.14$



Ans: \_\_\_\_\_ [3]

10. RSTU is a parallelogram. SQT is an isosceles triangle.  
 $\angle URS$  is  $76^\circ$ . Find  $\angle SQT$ .



Ans: \_\_\_\_\_ [3]

11. Jane and Ella travelled from Town A to Town B. Jane started earlier at 1 p.m. and travelled at 85 km/h. She took 1 h 48 min. Ella started later and travelled at 90 km/h. She arrived at Town B at the same time as Jane. What time did Ella leave Town A? (Leave your answer in 12-hour clock)

Ans: \_\_\_\_\_ [4]

12. Ali, Ben and Devi had equal number of beads. Ali packed all his beads equally into 3 packets. Ben packed all his beads equally into 6 packets. Devi packed all her beads equally into 9 packets. 1 packet of Ali's beads, 3 packets of Ben's beads and 4 packets of Devi's beads added up to 759. How many beads did they have altogether?

Ans: \_\_\_\_\_ [4]



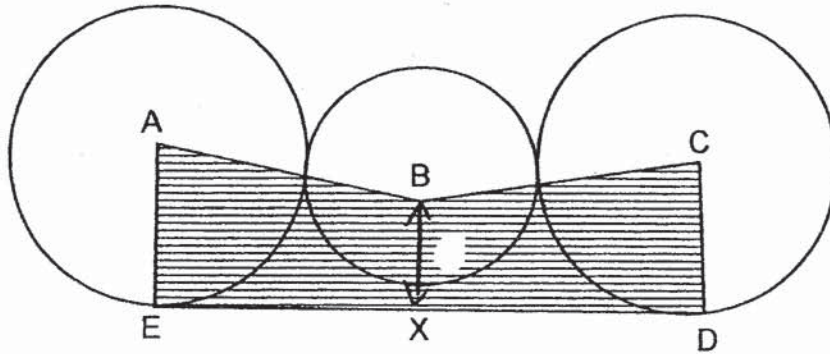
13. Shawn and Josh each had the same amount of syrup for making lemonade. The same amount of syrup was used for making each cup of lemonade. Shawn made 30 cups of lemonade and had 552 ml of syrup left. Josh made 6 cups of lemonade and had 1.2 litres of syrup left.

- (a) What was the volume of syrup needed to make 1 cup of lemonade?
- (b) What was the maximum number of cups of lemonade that can be made with the remaining syrup left from both the boys?

Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [2]

14. A, B and C are the centres of Circle A, Circle B, and Circle C respectively. The radius of Circle A and Circle C is 12 cm, and the radius of Circle B is 8 cm. The length of BX is 9 cm and the perimeter of figure ABCDE is 102 cm. Find the area of the shaded figure.



Ans: \_\_\_\_\_ [4]

15. At a concert, the price of admission ticket of each adult was \$120 and the price of admission ticket of each child was \$70. On the first day, there were 1300 people. 640 of them were adults and the rest were children. On the second day, there were 880 adults at the concert and the number of children increased by 30%.

- (a) What was the percentage increase of the adults on the second day?
- (b) How much money was collected at the concert on the second day?

Ans: a) \_\_\_\_\_ [1]

b) \_\_\_\_\_ [3]

16. During an event, Mrs Wang ordered 880 buns and tarts from a bakery. The cost of a tart was \$1.50 and it was 3 times the cost of a bun.  $\frac{3}{5}$  of the tarts and  $\frac{2}{7}$  of the buns were eaten. The number of tarts and buns left was 550.

- (a) How many buns were eaten?
- (b) How much did Mrs Wang paid in total for the buns?

Ans: a) \_\_\_\_\_ [4]

b) \_\_\_\_\_ [1]

17. The ratio of the number of pupils in 6H to the number of pupils in 6J was 4 : 9.  
140 magazines were given to the pupils to be shared so that each pupil in 6H received 2 magazines while each pupil in 6J received 3 magazines.

- (a) How many pupils were there in 6J?
- (b)  $66\frac{2}{3}\%$  of the pupils in 6J had decided to give  $\frac{8}{9}$  of their magazines to the pupils in 6H to be shared out equally. What was the new number of magazines each of these pupils have in 6H after receiving them from the pupils in 6J?

Ans: a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [3]

**End of Paper**  
**Please check your work carefully ☺**



# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : RAFFLES GIRLS' PRIMARY  
 SUBJECT : MATHEMATICS  
 TERM : SA1

## Paper 1

Q1	4	Q4	3	Q7	1	Q10	1	Q13	1
Q2	2	Q5	2	Q8	1	Q11	3	Q14	4
Q3	4	Q6	3	Q9	2	Q12	3	Q15	3

Q16 205

Q17 \$748.80

Q18 10.13

Q19 5:15 pm

Q20  $\frac{3}{10}$

Q21 \$2y

Q22  $2\frac{4}{5}$  m

Q23 24.5 cm<sup>2</sup>

Q24 31

Q25 7.5 km/h

Q26 99 days

Q27 0.8 kg

Q28  $60 \text{ cm}^2$

Q29  $14^\circ$

- Q30 a) False  
b) True

Paper 2

Q1 Betty's stickers  $\rightarrow x + x + 5 = 2x + 5$   
Total stickers  $\rightarrow x + 2x + 5 \Rightarrow \underline{(3x + 5)}$

Q2  $100\% - 15\% \rightarrow 85\%$   
 $568 \times 85\% \Rightarrow \underline{\$482.80}$

Q3  $\frac{1}{4} + \frac{1}{4} = \frac{2}{4} = \frac{1}{2}$

$(36 \div 36) = 72$

$1 \div \frac{1}{2} = \frac{2}{1} = 2$

$\frac{1}{2} \rightarrow 72$

$1 \rightarrow 72 \times 2 \Rightarrow \underline{144 \text{ chicken pies}}$

Q4  $3 + 3 = 6$   
 $26 \times 6 = 156$  (total cost)  
 $156 - 90 = 66$  (cost of volley balls)  
 $66 \div 3 \Rightarrow \underline{\$22}$

Q5  $180^\circ \div 4 \times 3 \Rightarrow \underline{135^\circ}$



Q6  $2A + 3C = 183$   
 $3A + 2C = 192$   
 $4A + 6C = 366$   
 $9A + 6C = 576$   
 $9A - 4A = 5A$   
 $5A = 576 - 366 \rightarrow 210$   
 $A = 210 \div 5 \Rightarrow \underline{\$42}$

Q7  $90 - 50 = 40$   
 $40 \div 0.80 = 50$   
 $50 \div 50 = 1$   
 $1 + 1.40 \Rightarrow \underline{\$2.40}$

Q8 (a)  $180^\circ - 90^\circ - 22^\circ \Rightarrow \underline{68^\circ}$   
 (b)  $180^\circ - 68^\circ - 68^\circ \Rightarrow \underline{44^\circ}$

Q9  $\frac{1}{4} \times 3.14 \times 40 = 31.4$   
 $\frac{1}{2} \times 3.14 \times 20 = 31.4$   
 $40 \div 2 = 20$   
 $31.4 + 31.4 + 20 \Rightarrow \underline{82.8 \text{ cm}}$

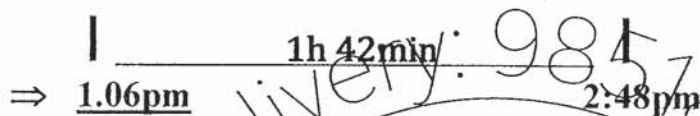
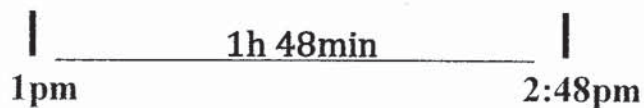
Q10  $180^\circ - 76^\circ = 104^\circ$   
 $360^\circ - 104^\circ - 90^\circ = 166^\circ$   
 $180^\circ - 166^\circ = 14^\circ$   
 $14^\circ \div 2 \Rightarrow \underline{7^\circ}$

Q11  $1\text{h } 48\text{min} = 1.8\text{h}$

$85 \times 1.8 = 153$

$153 \div 90 = 1.7$

$1.7 = 1\text{h } 42\text{min}$



Q12  $6 + 9 + 8 = 23$

$759 \div 23 = 33$

$33 \times 18 = 594$

$594 \times 3 \Rightarrow \underline{1782 \text{ beads}}$

Q13 (a)  $1.2 \ell = 1200 \text{ ml}$

$1200 - 552 = 648$

$30 - 6 = 24$

$648 \div 24 \Rightarrow \underline{27 \text{ ml}}$

(b)  $552 + 1200 = 1752$

$1752 \div 27 = 64 \text{ R } 24 \Rightarrow \underline{64 \text{ cups}}$

Q14  $102 - 12 - 12 - 12 - 12 - 8 - 8 = 38$

$38 \div 2 = 19$

$(9 + 12) \times 19 \div 2 = 199.5$

$199.5 \times 2 \Rightarrow \underline{399 \text{ cm}^2}$

Q15 (a)  $880 - 640 = 240$

$\frac{240}{640} \times 100\% \Rightarrow \underline{37.5\%}$

(b)  $1300 - 640 = 660$   
 $130\% \times 660 = 858$   
 $858 \times 70 = 60060$   
 $880 \times 120 = 105600$   
 $60060 + 105600 \Rightarrow \underline{\$165660}$

Q16 (a)  $5T + 7B = 880$   
 $2T + 5B = 550$   
 $10T + 14B = 1760$   
 $10T + 25B = 2750$   
 $25B - 14B = 11B$   
 $11B = 2750 - 1760 = 990$   
 $B = 990 \div 11 = 90$   
 $2B = 90 \times 2 \Rightarrow \underline{180 \text{ buns}}$

(b)  $7B = 90 \times 7 = 630$   
 $\$1.50 \div 3 = \$0.50$   
 $\$0.50 \times 630 \Rightarrow \underline{\$315}$

Q17 (a)  $4 \times 2 = 8$   
 $9 \times 3 = 27$   
 $8 + 27 = 35$   
 $140 \div 35 = 4$   
 $4 \times 9 \Rightarrow \underline{36 \text{ pupils}}$

(b)  $4 \times 9 = 36$   
 $66\frac{2}{3}\% \times 36 = 24$

$24 \times 3 = 72$   
 $\frac{8}{9} \times 72 = 64$   
 $64 \div 16 = 4$   
 $2 + 4 \Rightarrow \underline{6 \text{ magazines}}$

End





**ROSYTH SCHOOL**  
**2018 PRELIMINARY EXAMINATION**  
**MATHEMATICS**  
**PAPER 1**  
**PRIMARY 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Date: 20 August 2018

Parent's Signature: \_\_\_\_\_

Total Time for Booklets A and B : 1 hour

---

**Booklet A**

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. Shade your answers in the Optical Answer Sheet (OAS) provided.
4. You are not allowed to use a calculator.
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet A)	20	

\* This booklet consists of 8 pages (including this cover page).

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Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
 For each question, four options are given. One of them is the correct answer.  
 Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

(20 marks)

1. Round off 41 856 to the nearest thousands.

- (1) 41 000
- (2) 41 860
- (3) 41 900
- (4) 42 000

2. Arrange these distances from the longest to the shortest:

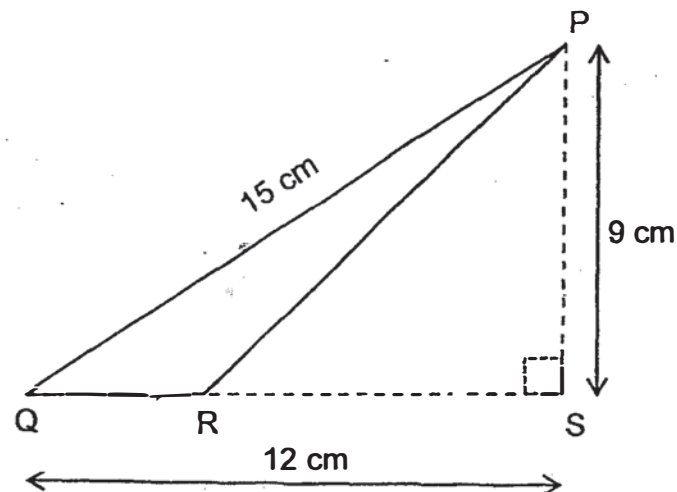
5.01 m,	0.55 km,	505 cm
---------	----------	--------

- |     | <u>Longest</u> |          | <u>Shortest</u> |
|-----|----------------|----------|-----------------|
| (1) | 0.55 km        | , 505 cm | , 5.01 m        |
| (2) | 0.55 km        | , 5.01 m | , 505 cm        |
| (3) | 505 cm         | , 5.01 m | , 0.55 km       |
| (4) | 5.01 m         | , 505 cm | , 0.55 km       |

3. Express  $14m - 12 - 6m + 7m$  in its simplest form.

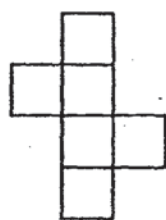
- (1)  $3m$
- (2)  $m + 2$
- (3)  $m - 12$
- (4)  $15m - 12$

4. In the figure below,  $PS = RS$ . Find the area of triangle PQR.

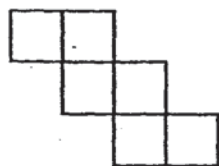


- (1)  $13.5 \text{ cm}^2$   
(2)  $22.5 \text{ cm}^2$   
(3)  $54 \text{ cm}^2$   
(4)  $67.5 \text{ cm}^2$
5. Ali travelled at an average speed of  $60 \text{ km/h}$  from home to his work place. He took  $20 \text{ min}$  for the journey. What was the distance travelled?
- (1)  $12 \text{ km}$   
(2)  $20 \text{ km}$   
(3)  $3 \text{ km}$   
(4)  $1200 \text{ km}$

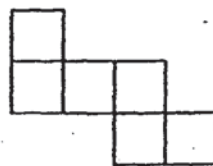
6. Which of the following nets can be folded to form a cube?



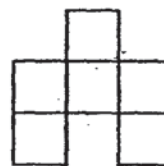
(A)



(B)



(C)



(D)

- (1) A and B only
- (2) A, B and C only
- (3) A, C and D only
- (4) All of the above

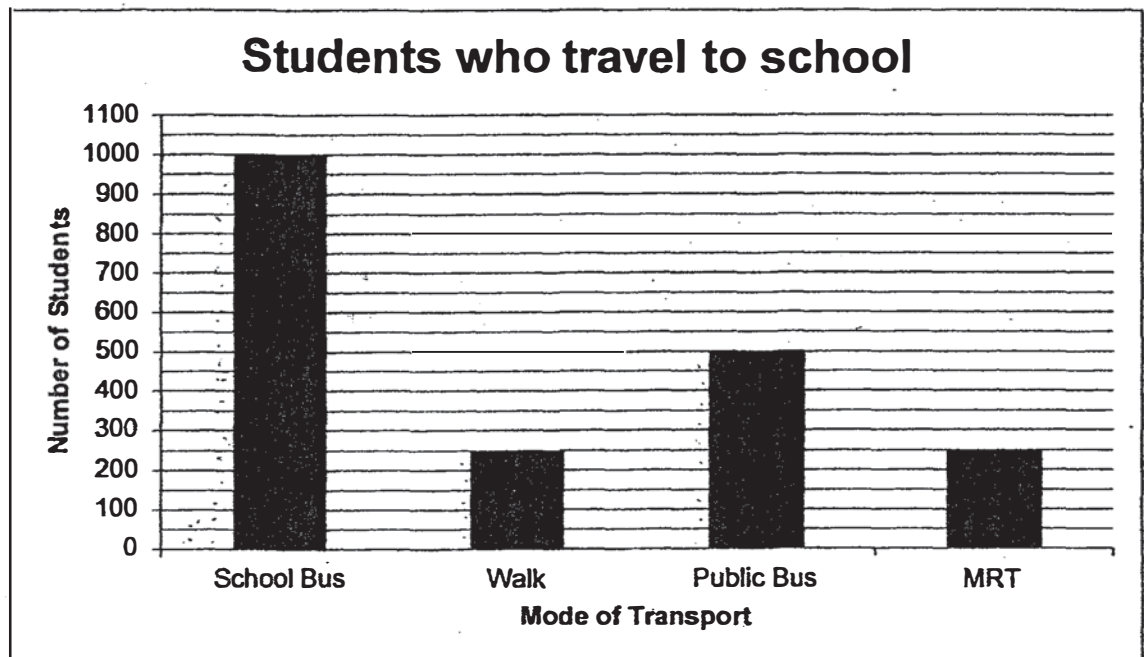
7. The opening hours of Chan's Clinic are shown below.  
How long is the clinic open each day?

- (1) 6 h 15 min
- (2) 6 h 45 min
- (3) 7 h 15 min
- (4) 7 h 45 min

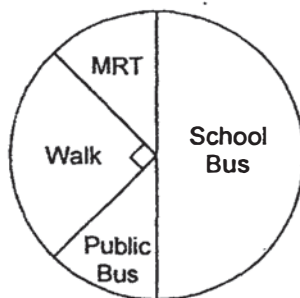




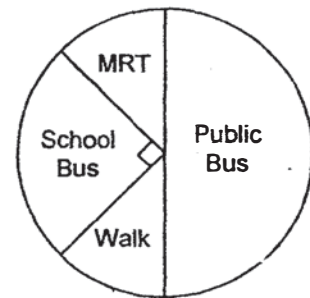
8. The table shows the number of students who travels to school using different modes of transport during school days. Which pie chart represents the data correctly?



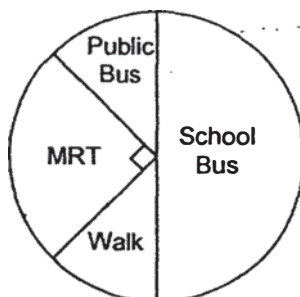
(1)



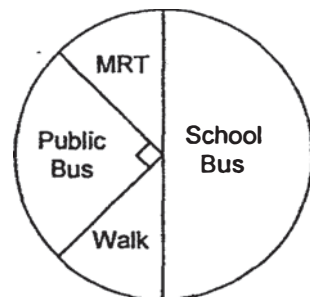
(2)



(3)



(4)

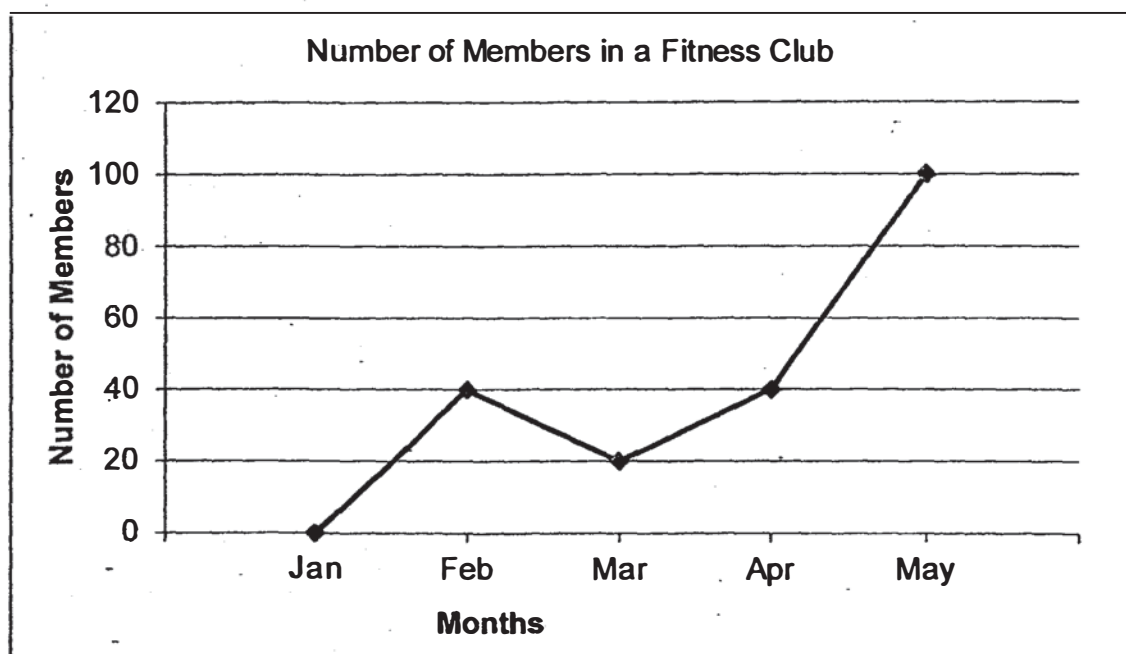


9. Read the following statements and decide whether the statement(s) is/are Not always True, True or False.

- A. All four-sided shapes can always be divided into 2 triangles.
- B. There are no parallel lines in a trapezium.
- C. Every square is a parallelogram.

	A	B	C
(1)	Not always true	True	False
(2)	True	False	Not always true
(3)	True	False	True
(4)	Not always true	False	Not always true

10. The graph below shows the number of members in a fitness club over a period of time.



Which month did the fitness club have the greatest increase in the number of members?

- (1) Jan to Feb
- (2) Feb to Mar
- (3) Mar to Apr
- (4) Apr to May

11. Mrs Tan had 15 kg of flour. She packed the flour equally into bags, each weighing  $\frac{4}{5}$  kg. How much flour was left unpacked?

(1)  $\frac{1}{5}$  kg

(2)  $\frac{1}{4}$  kg

(3)  $\frac{3}{5}$  kg

(4)  $\frac{3}{4}$  kg

12. Thomas had a total of 600 red, blue and black pens.  $\frac{2}{5}$  of the pens were red.  $\frac{1}{5}$  of the remaining pens were blue. How many black pens were there?

(1) 72

(2) 192

(3) 240

(4) 288

13. In the equation below, find the number in the box.

$$0.5 \times 240 = \boxed{?} \times 1200$$

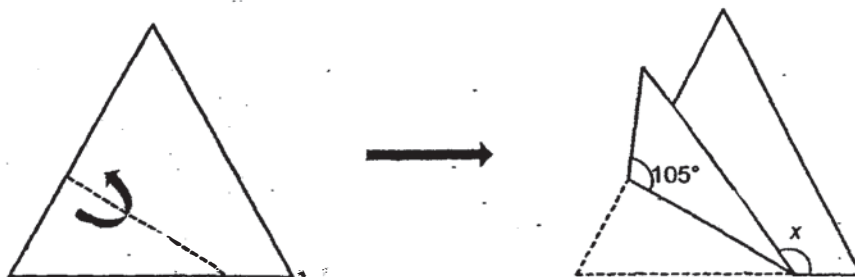
(1) 0.01

(2) 0.1

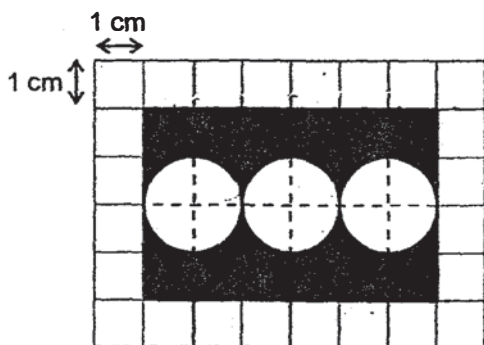
(3) 2.5

(4) 5

14. A piece of paper in the shape of an equilateral triangle is folded along the dotted line as shown below. Find  $\angle x$ .



- (1)  $15^\circ$   
 (2)  $30^\circ$   
 (3)  $105^\circ$   
 (4)  $150^\circ$
15. The figure below is made up of a rectangle and 3 identical circles. Find the area of the shaded part. Leave your answer in terms of  $\pi$ .



- (1)  $(24 - 3\pi) \text{ cm}^2$   
 (2)  $(24 - \pi) \text{ cm}^2$   
 (3)  $(6 - 3\pi) \text{ cm}^2$   
 (4)  $(6 - \pi) \text{ cm}^2$

Go on to Booklet B



**ROSYTH SCHOOL**  
**2018 PRELIMINARY EXAMINATION**  
**MATHEMATICS**  
**PAPER 1**  
**PRIMARY 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_ Group: \_\_\_\_\_

Date: 20 August 2018

Parent's Signature: \_\_\_\_\_

Total Time for Booklets A and B : 1 hour

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**Booklet B**

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. You are not allowed to use a calculator.
4. Write your answers in the booklet.
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	25	

\* This booklet consists of 10 pages (including this cover page).

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Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated.

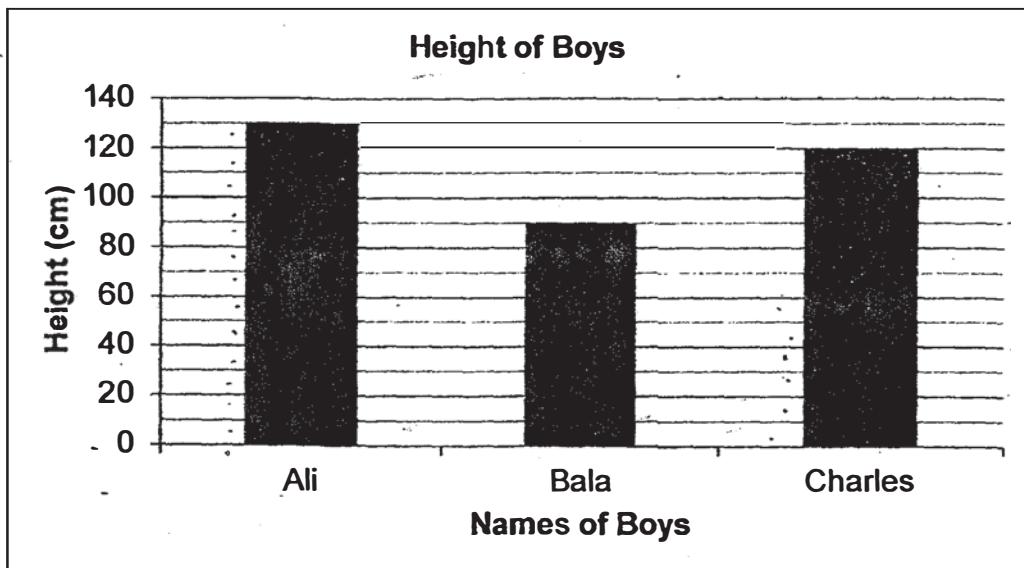
Do not write  
in this space

**All diagrams in this paper are not drawn to scale unless stated otherwise.**  
(5 marks)

16. Find the sum of 3 tens, 33 hundredths and 300 thousandths.

Answer : \_\_\_\_\_

17. The graph below shows the height of 3 boys Ali, Bala and Charles. Find the total height of Ali and Charles.

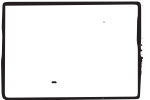


Answer : \_\_\_\_\_ cm

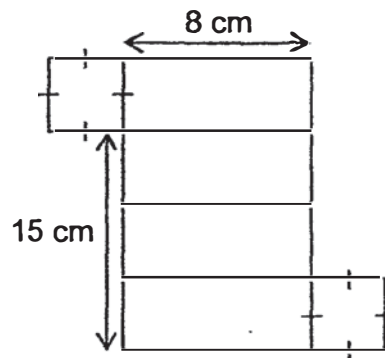
18. Find 0.5% of 500.

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in this space

Answer : \_\_\_\_\_



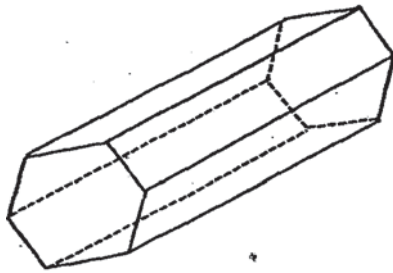
19. The net shown below can be folded to form a cuboid.  
What is the volume of the cuboid?



Answer : \_\_\_\_\_  $\text{cm}^3$



20. How many faces does the following solid have?



Do not write  
in this space

Answer : \_\_\_\_\_



Questions 21 to 30 carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

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in this space

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

**(20 marks)**

21. Find the value of  $(87 - 23) \times 2 \div 4 - (36 - 24)$ .

Answer : \_\_\_\_\_

22. The table below shows the parking charges of a carpark.

First hour	\$1.20
Every additional 10 minutes or part thereof	\$0.80

How much does it cost to park from 3 p.m. to 5.06 p.m.?

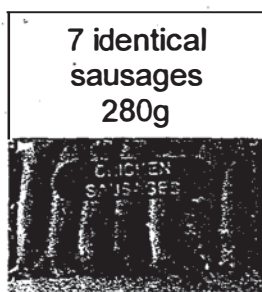
Answer : \_\_\_\_\_

23. In a class, every group of 4 boys was given 6 stickers and every group of 3 girls was given 8 stickers. The class teacher gave the stickers to an equal number of boys and girls. What was the minimum number of stickers needed?

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in this space

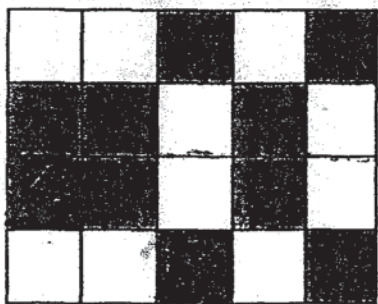
Answer : \_\_\_\_\_

24. A packet of sausages is shown below. Mrs Lee bought 1kg 400g of sausages. How many sausages did she buy?



Answer : \_\_\_\_\_

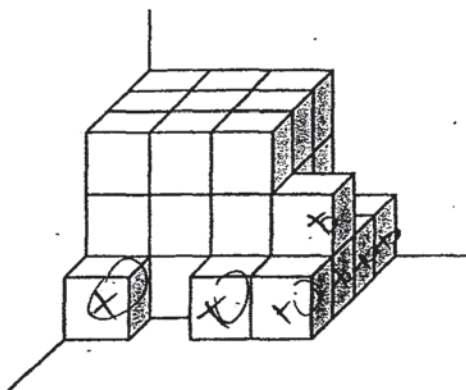
25. The figure below is made up of squares.  
Shade two more squares so that the figure has a line of symmetry.



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in this space



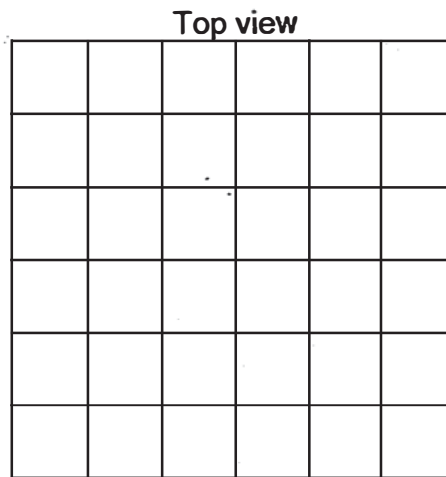
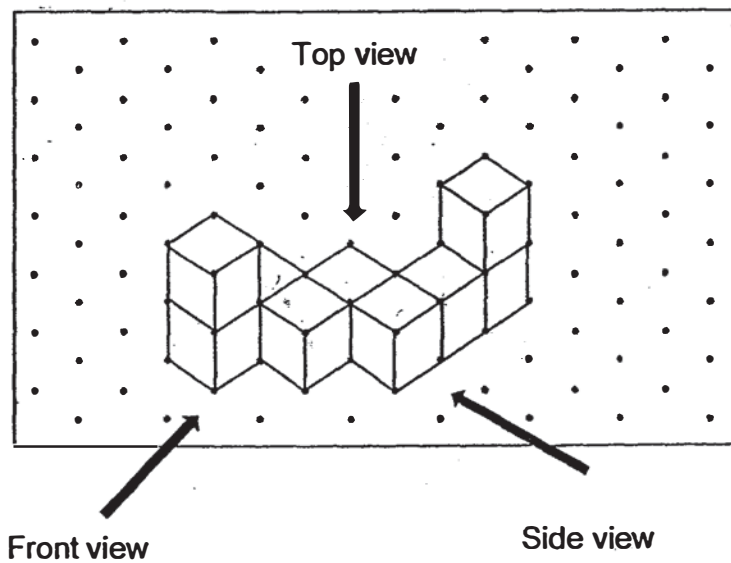
26. The figure below shows 1-cm unit cubes stacked against a corner. What is the least number of unit cubes that must be removed to form a cube?



Answer : \_\_\_\_\_



27. Draw the top view of the solid in the grid below.



Do not write  
in this space



28. The total cost of 3 apples and 2 pears is  $\$(5y + 3)$ . The cost of 2 apples is \$2 more than the cost of 2 pears. What is the total cost of an apple and a pear? Express the answer in terms of  $y$ .

Answer : \$ \_\_\_\_\_



(Go on to the next page)

29. Figure A is made up of 8 identical squares. There are 3 squares removed from Figure A to form Figure B. The perimeter of Figure B is 120 cm. What is the perimeter of Figure A?

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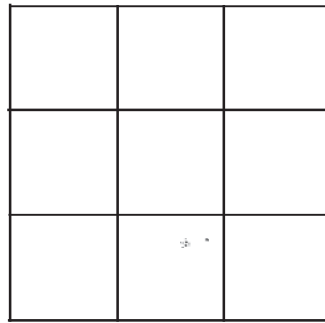


Figure A

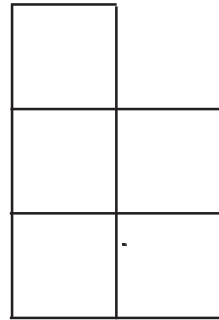


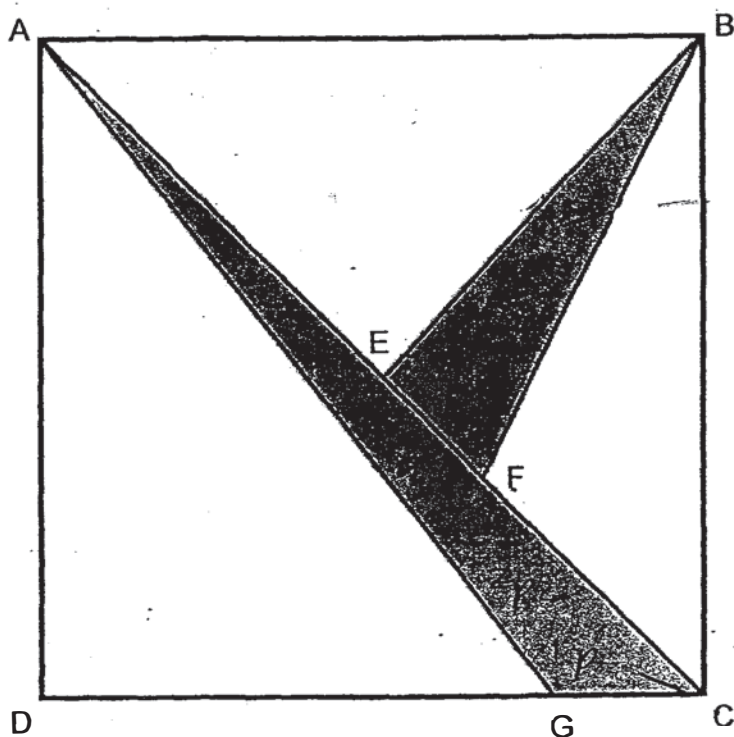
Figure B

Answer : \_\_\_\_\_ cm



30. The square ABCD was cut into 5 parts. Given that the ratio of  $BE : EC$  is  $1 : 1$ , the ratio of  $EF : FC$  is  $1 : 2$  and the ratio of  $DG : GC$  is  $3 : 1$ . What fraction of the square is shaded?

Do not write  
in this space



Answer : \_\_\_\_\_



**End of paper**  
**Have you checked your work?**



**ROSYTH SCHOOL**  
**2018 PRELIMINARY EXAMINATION**  
**MATHEMATICS**  
**PAPER 2**  
**PRIMARY 6**

Name: \_\_\_\_\_

Register No. \_\_\_\_\_

Class: Pr 6 - \_\_\_\_\_

Date: 20 August 2018

Parent's Signature: \_\_\_\_\_

Time: 1 h 30 min

---

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. **Show your workings clearly** as marks are awarded for correct working.
4. Write your answers in this booklet.
5. You are allowed to use a calculator.
6. Answer all questions.

Questions	Maximum Mark	Marks Obtained
Q 1 to 5	10	
Q 6 to 17	45	

Section	Maximum Mark	Marks Obtained
Paper 1	45	
Paper 2	55	
Total	100	

\* This booklet consists of 16 pages (including this cover page).  
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Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

Do not write  
in this space

(10 marks)

**All diagrams in this paper are not drawn to scale unless stated otherwise.**

1. Tricia had 70 chocolates. She gave  $3w$  chocolates to her brother. Then she gave the rest equally to her 5 cousins. How many chocolates did each cousin receive? Leave your answer in terms of  $w$ .

Answer : \_\_\_\_\_

2. Mrs Pradeep bought some flour. She used  $2\frac{1}{5}$  kg of the flour and gave  $\frac{3}{7}$  of the remaining flour to her sister. In the end, she was left with  $1\frac{3}{5}$  kg of the flour. How much flour did she buy at first?

Answer : \_\_\_\_\_ kg



3. Ariel was at a fun-fair. The table below shows the number of points which can be exchanged for tickets. Ariel wanted to win a soft-toy which required 80 tickets. How many points must Ariel get in order to exchange for her soft-toy?

Points	Tickets
885	300

Answer : \_\_\_\_\_

4. Miss Lee gave away an almond on Day 1. She increased the number of almonds given away every day by 100%. Find the ratio of the number of almonds given on Day 7 to the number of almonds given on Day 3. Give your answer in the simplest form.

Answer : \_\_\_\_\_

Do not write  
in this space

5. The average of the odd numbers below is 7. What odd number must be added so that the average of all the numbers becomes 10?

1, 3, 5, 7, 9, 11, 13

Do not write  
in this space

Answer : \_\_\_\_\_

For Questions 6 to 17, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. For questions which require units, give your answers in the units stated.

(45 marks)

***All diagrams in this paper are not drawn to scale unless stated otherwise.***

Do not write  
in this space

6. A crate was filled with an equal number of apples and oranges. The apples were sold for \$315 and the oranges were sold for \$225. Each apple cost \$0.20 more than each orange. How many oranges were sold?

Answer : \_\_\_\_\_ [3]



7. The ratio of the number of Dawn's stickers to the number of Evelyn's stickers was 1 : 4. After Dawn and Evelyn gave away  $\frac{1}{3}$  and  $\frac{3}{4}$  of their stickers respectively, they were left with 90 stickers altogether. How many stickers did they have at first?

Do not write  
in this space

Answer : \_\_\_\_\_ [3]



8. The average mass of 8 baskets of fruits at a zoo feeding station was 23 kg. Some baskets of fruits with an average mass of 20.4 kg were added. The average mass of all the baskets of fruits became 22 kg. How many baskets of fruits were added?

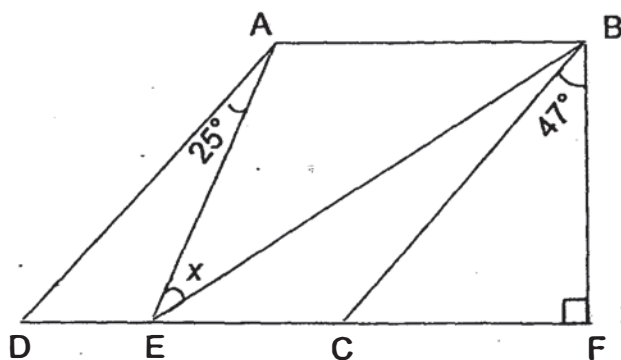
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in this space

Answer : \_\_\_\_\_ [3]



9. In the figure below, ABCD is a parallelogram and  $AE = AB$ .  $\angle BFC$  is a right angle.  $\angle FBC = 47^\circ$  and  $\angle EAD = 25^\circ$ . Find  $\angle x$ .

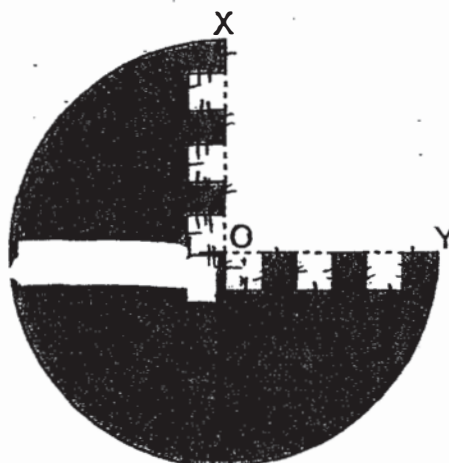
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in this space



Answer : \_\_\_\_\_ [3]



10. The figure below is made up of three quadrants and six identical squares. Each side of the squares is 1 cm. The length of OX is 6 cm. Find the perimeter of the shaded part. Take the calculator value of  $\pi$  and give your answer correct to 2 decimal places.



Do not write  
in this space

Ans: \_\_\_\_\_ [3]



11. Amos and his sister shared \$1674. Amos spent 25% of his money and his sister spent 70% of her money. After that, Amos had twice as much money left as his sister.

- (a) How much did Amos have in the end?  
(b) What was the percentage decrease in the total sum of money?

Do not write  
in this space

Ans: a) \_\_\_\_\_ [3]

b) \_\_\_\_\_ [2]





12. A bakery sold durian, chocolate and strawberry puffs in the ratio of 3 : 4 : 2. Each durian, chocolate and strawberry puff was sold for \$5, \$3 and \$4. A total of \$560 was collected on a Sunday afternoon. Find the amount of money collected from the sale of durian puffs.

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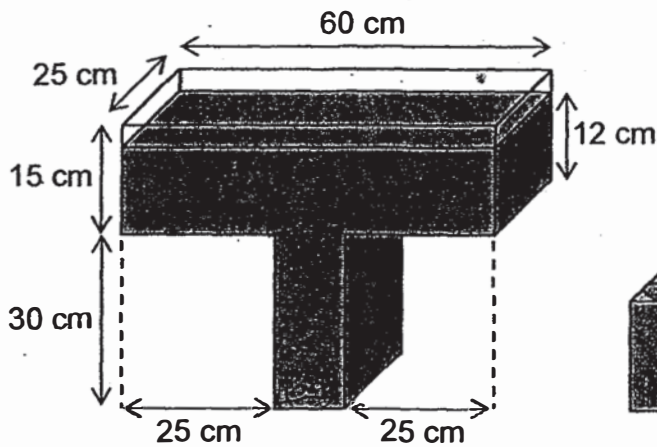
Ans : \_\_\_\_\_ [4]



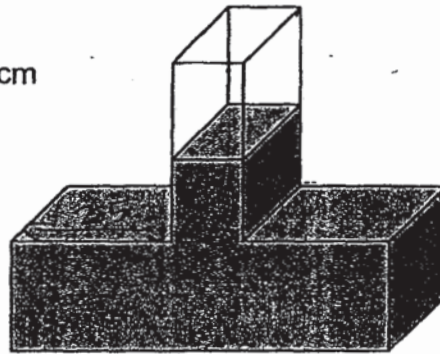
13. Two identical T-shaped containers, P and Q, are shown below. Both of them have the same amount of water in it.

Do not write  
in this space

- (a) Find the volume of the water in container P.  
(b) Find the height of the water in container Q.



Container P



Container Q

Answer : a) \_\_\_\_\_ [2]

b) \_\_\_\_\_ [3]



14. In a donation drive, a class of 40 boys and girls helped to distribute some food items. Each boy distributed 4 bags while each girl distributed 3 bags. The boys distributed 62 more bags than the girls. How many boys were there?

Do not write  
in this space

Answer : \_\_\_\_\_ [4]



15. Sam and Ben started swimming at the same time from the opposite ends of a 30-m swimming pool. Each boy would turn in the opposite direction and continue swimming upon reaching the end of the pool. The average speed of Sam was 1 m/s and the average speed of Ben was 0.6 m/s. How many times did they meet each other if they swam for 10 min? (Assuming that the turning time is neglected.)

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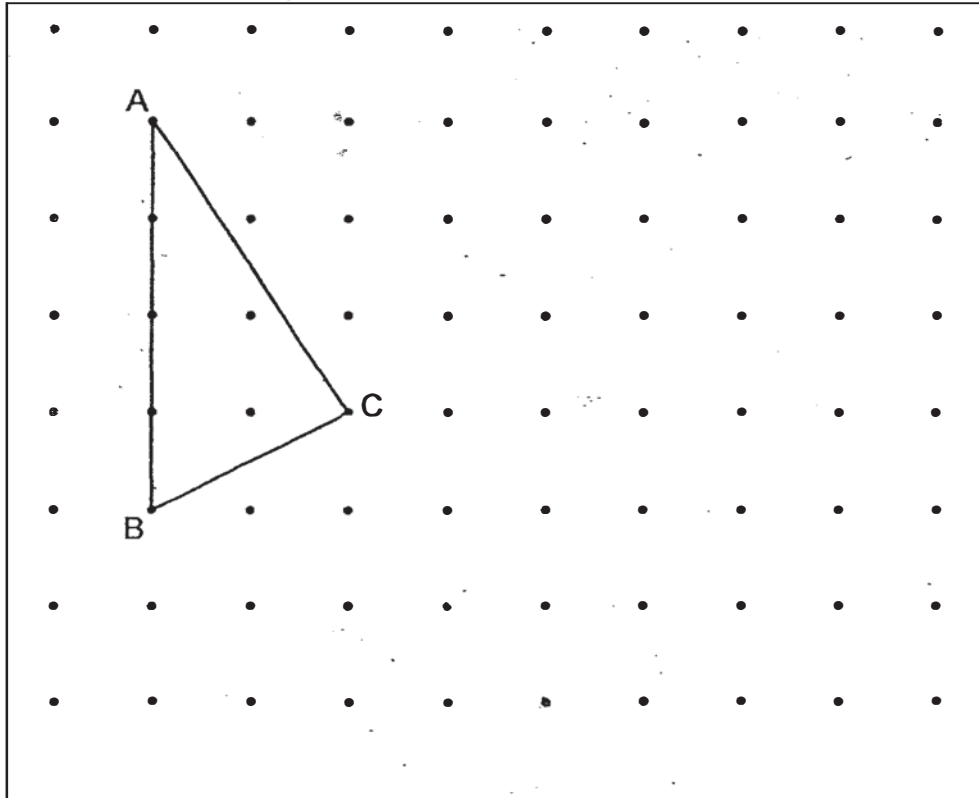
Answer : \_\_\_\_\_ [4]



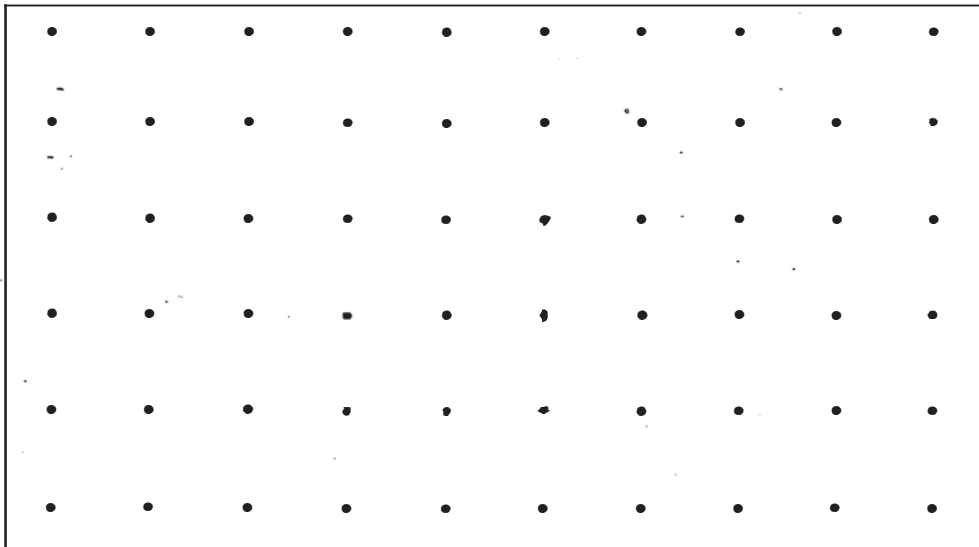
16. The figure below shows a triangle ABC drawn on a grid.

Do not writ  
in this spac

- a) BCD is another triangle with the same area as triangle ABC. Draw BCD on the grid below such that BCD does not overlap with ABC. [2m]



- (b) Draw a 4-sided figure with the same area as triangle ABC in part (a). [2m]



17. 25% of Elle's money was spent on 5 files and 10 erasers. The cost of each file was twice the cost of each eraser. Elle bought some more erasers with 40% of her remaining money. How many erasers did she buy altogether?

Do not write  
in this space

Ans : \_\_\_\_\_ [4]



**End of paper**  
**Have you checked your work?**



# ANSWER KEY

**YEAR : 2018**  
**LEVEL : PRIMARY 6**  
**SCHOOL : ROSYTH SCHOOL**  
**SUBJECT : MATHEMATICS**  
**TERM : PRELIMINARY EXAMINATION**

## PAPER 1 BOOKLET A

Q1	4	Q2	1	Q3	4	Q4	1	Q5	2
Q6	2	Q7	3	Q8	4	Q9	3	Q10	4
Q11	3	Q12	4	Q13	2	Q14	4	Q15	1

## PAPER 1 BOOKLET B

Q16) 30.63

Q17) 250cm

Q18) 2.5

Q19) 200cm<sup>3</sup>

Q20) 8 faces

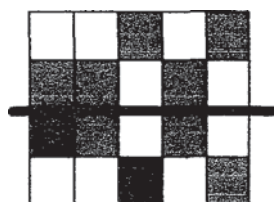
Q21) 20

Q22) \$6.80

Q23) 50 stickers

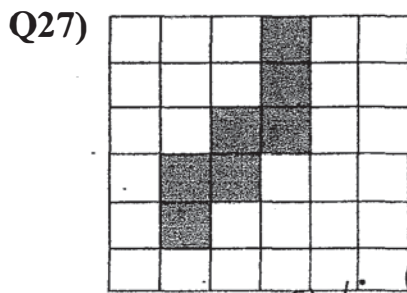
Q24) 35 sausages

Q25)





Q26) 7 cubes



Q28)  $(2x + 1)$

Q29) 168cm

Q30)  $\frac{5}{24}$

PAPER 2

Q1)  $(\frac{70-3w}{5})$

Q2) 5kg

Q3) 236 points

Q4) 16:1

Q5) 31

Q6) Equal no of fruits: n

na  $\rightarrow$  \$315

no  $\rightarrow$  \$225

$315 - 225 = \$90$

a  $\rightarrow$  20cents + o

na  $\rightarrow$  20n cents + no

20n cents = \$90

0.20 n = \$90

n = 450

Q7) D : E

$$1 : 4$$

$$= 3 : 12$$

$$- 1u - 9u$$

$$= 2u : 3u$$

$$5u \rightarrow 90$$

$$1u \rightarrow 18$$

$$3 : 12 = 15u \text{ total}$$

$$15 \times 18 = 270 \text{ stickers}$$

Q8) Total of 8 b  $\rightarrow 23 \times 8$

$$= 184\text{kg}$$

$$20.4 \times n = 20.4n \text{ kg}$$

$$\text{In the end} \rightarrow (n + 8) \times 22$$

$$= (22n + 176)\text{kg}$$

$$184 + 20.4n = 22n + 176$$

$$184 = 1.6n + 176$$

$$8\text{kg} = 1.6n$$

$$n \text{ kg} = 5\text{kg}$$

$$n = 5 \text{ baskets}$$

Q9)  $\angle BCF \rightarrow 180 - 90 - 47$

$$= 43^\circ$$

$$\angle BCE \rightarrow 90 + 47$$

$$= 137^\circ$$

$$\angle EAB \rightarrow 137 - 25$$

$$= 112^\circ$$

$$\angle x \rightarrow \frac{180 - 112}{2}$$

$$= 34^\circ$$

Q10) (r)adius  $\rightarrow 6\text{cm}$

(d)iameter  $\rightarrow 12\text{cm}$

(c)ircumference  $\rightarrow d \times \pi$

$$12\pi \times \frac{3}{4} = 9\pi \text{ cm}$$

$$6 \times 2 = 12$$

$$12 + 12 = 24\text{cm}$$

$$(9\pi + 24)\text{cm} = 52.2743\dots$$

$$\approx \underline{52.27\text{cm}}$$

Q11a) A : S

$$4u : 10p$$

$$- 1u : -7p$$

$$= 3u : 3p$$

$$3u = 6p$$

$$1u = 2p$$

$$\text{Total: } 18p$$

$$1p \rightarrow 1674 \div 18$$

$$= 93$$

$$93 \times 6 = \underline{\$558}$$

Q11b)  $\frac{9}{18} \times 100\% = \underline{50\%}$

Q12)  $3 : 4 : 2$

$$3d = 5 \times 3$$

$$= 15$$

$$4c = 3 \times 4$$

$$= 12$$

$$2s = 4 \times 2$$

$$= 8$$

$$15 + 12 + 8 = 35$$

$$560 \div 35 = 16$$

$$16 \times 3 = 48$$

$$48 \times \$5 = \underline{\$240}$$

Q13a)  $60 - (25 \times 2) = 10\text{cm}$

$$30 \times 10 \times 25 = 7500\text{cm}^3$$

$$12 \times 60 \times 25 = 18\,000\text{cm}^3$$

$$18\,000 + 7500 = \underline{25\,500\text{cm}^3}$$

Q13b) Air in P  $\rightarrow 3 \times 60 \times 25$

$$= 4500\text{cm}^3$$

$$4500 \div 25 \div 10 = 18\text{cm}$$

4

$$30 - 18 + 25 = \underline{27\text{cm}}$$

Q14) Assume all girls:  $40 \times 3 = 120$

$$120 + 62 = 182$$

$$4 + 3 = 7$$

$$182 \div 7 = \underline{26 \text{ boys}}$$

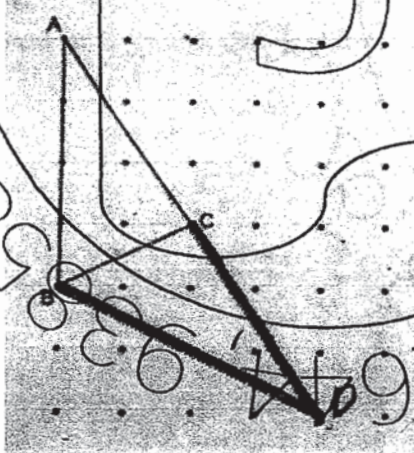
Q15)  $10\text{min} = 600\text{s}$

$$\text{Sam} \rightarrow 1 \times 600 \\ = 600$$

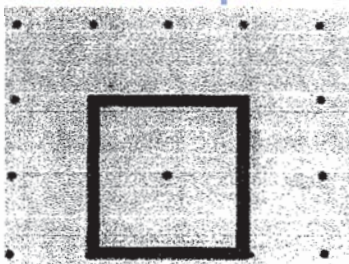
$$\text{Ben} \rightarrow 0.6 \times 600 \\ = 360$$

$$\text{Met} \rightarrow 600 \div 30 \\ = \underline{20}$$

Q16)



**KIASU**  
ExamPaper



Q17) 5 files  $\rightarrow$  10u

10 erasers  $\rightarrow$  10u

Total  $\rightarrow$  20u equals  $\frac{5}{20}$  money

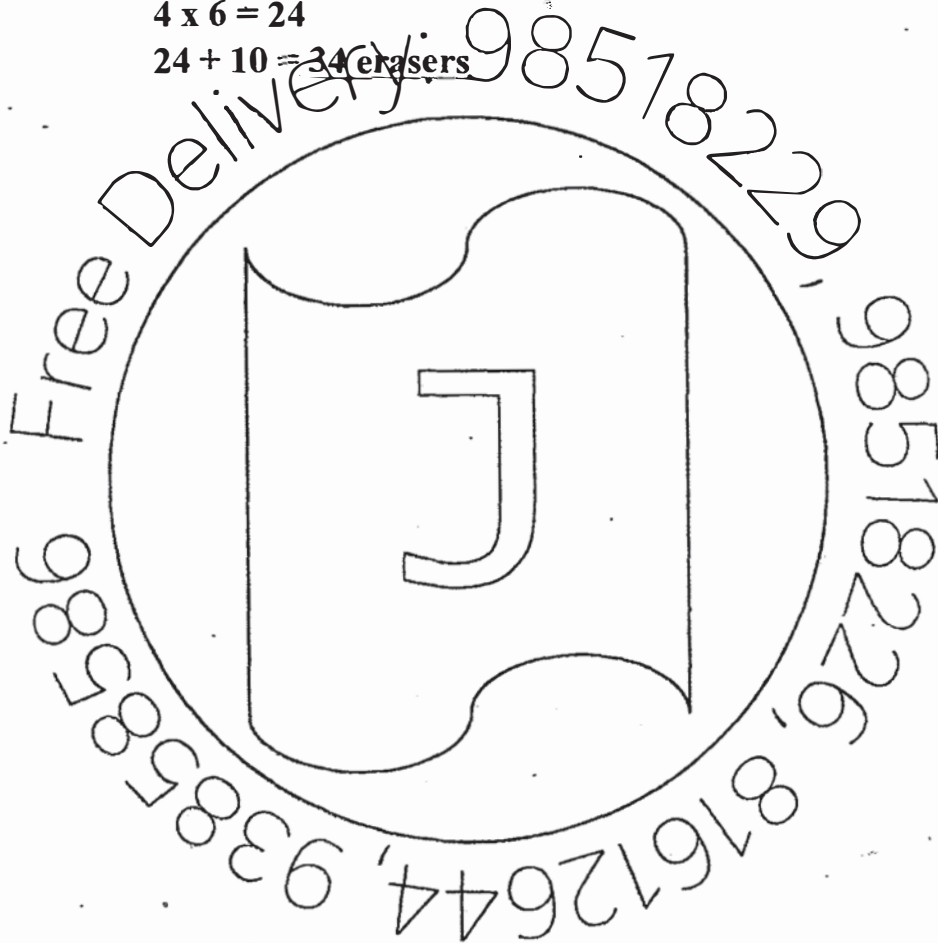
$$40\% \text{ of } \frac{15}{20} = \frac{6}{20}$$

$$\frac{1}{20} = 4u$$

$$4 \times 6 = 24$$

$$24 + 10 = 34 \text{ erasers}$$

**KIASU**  
ExamPaper 



**END**





## **2018 PRIMARY 6 PRELIMINARY EXAMINATION**

Name : \_\_\_\_\_ (     )     Date: 1 August 2018

Class : Primary 6     )

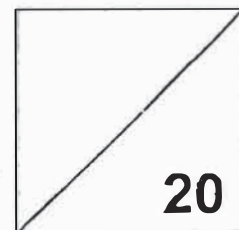
Time: 8.00 a.m. - 9.00 a.m.

Parent's Signature : \_\_\_\_\_

Marks: \_\_\_\_\_ / **100**

**Paper 1 comprises 2 booklets, A and B.**

### **MATHEMATICS PAPER 1 (BOOKLET A)**



#### **INSTRUCTIONS TO CANDIDATE**

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.
6. You are **not** allowed to use a calculator.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4).

Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

1. 7 kg 4 g is the same as \_\_\_\_\_.

- (1) 74 g
- (2) 704 g
- (3) 7 004 g
- (4) 7 040 g

2. Express  $40 \div 200$  as a decimal.

- (1) 0.5
- (2) 0.2
- (3) 0.05
- (4) 0.02

3. What is the value of  $50 \div 5 + (22 - 9) \times 2$ ?

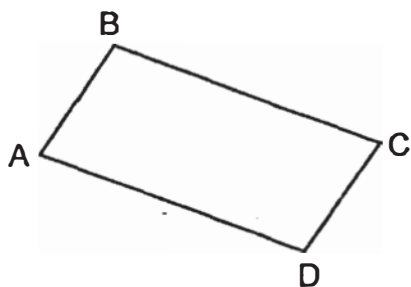
- (1) 14
- (2) 36
- (3) 46
- (4) 81

4. Janah spent 1 h 45 min watching a movie. It ended at 1.15 p.m.  
What time did the movie start?

- (1) 11.30 a.m.
- (2) 11.30 p.m.
- (3) 3.00 a.m.
- (4) 3.00 p.m.

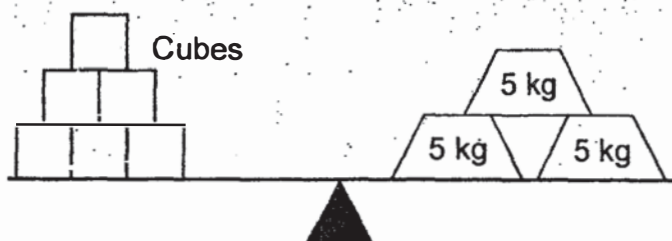


5. ABCD is a parallelogram. Which of the following is **false**?



- (1)  $\angle ABC + \angle BCD = 180^\circ$
- (2)  $\angle BCD = \angle DAB$
- (3)  $\angle CDA = \angle DAB$
- (4)  $\angle DAB + \angle ABC = 180^\circ$

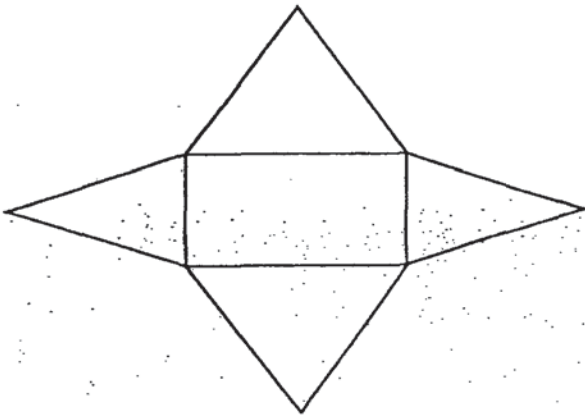
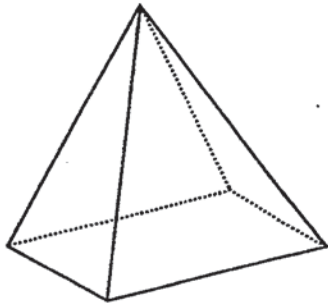
6. What is the average mass of each cube?



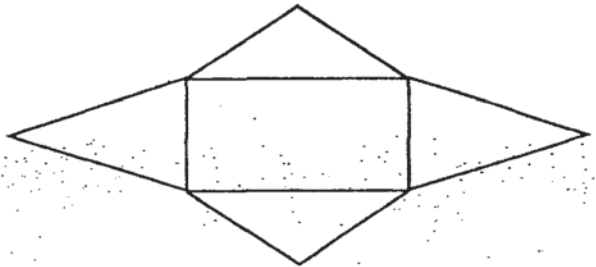
- (1) 15 kg
  - (2) 5 kg
  - (3) 2.5 kg
  - (4) 0.4 kg
7. A machine is able to fill up 10 bottles of drinks in 1 minute. How much time does the same machine take to fill up 1 bottle of drink?

- (1) 10 s
- (2) 6 s
- (3)  $\frac{1}{6}$  s
- (4)  $\frac{1}{10}$  s

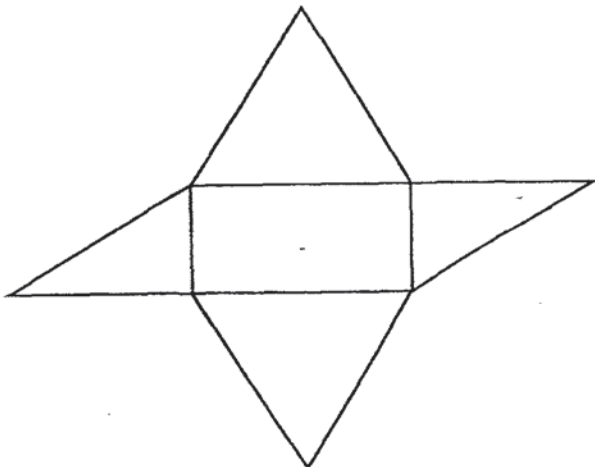
8. Which of the following is a net of the solid?



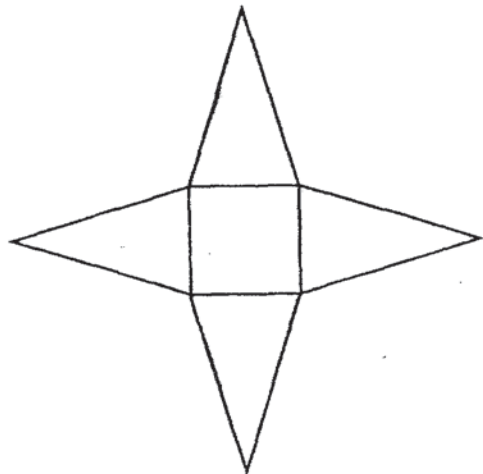
(1)



(2)



(3)



(4)

9. A jar contains 24 red beads, 56 blue beads and 20 green beads. What is the ratio of the number of blue beads to the number of red and green beads?

- (1) 4 : 1
- (2) 7 : 3
- (3) 11 : 14
- (4) 14 : 11

10. Arrange the following numbers from the greatest to the smallest.

62% , 0.63 ,  $\frac{3}{5}$

- (1)  $\frac{3}{5}$  , 0.63 , 62%

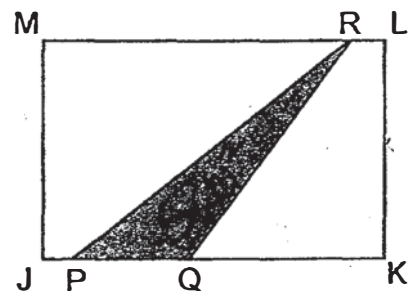
- (2) 62% , 0.63 ,  $\frac{3}{5}$

- (3) 0.63 ,  $\frac{3}{5}$  , 62%

- (4) 0.63 , 62% ,  $\frac{3}{5}$

11. JKLM is a rectangle. JK is thrice the length of PQ. The shaded area is 5 cm<sup>2</sup>. Find the area of JKLM.

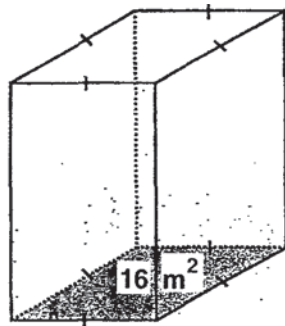
- (1) 6 cm<sup>2</sup>
- (2) 10 cm<sup>2</sup>
- (3) 15 cm<sup>2</sup>
- (4) 30 cm<sup>2</sup>



12. Saleh has \$7. He lends \$3 to his sister and spends \$y. His father gives him twice the amount of money he spends. How much money does Saleh have now?

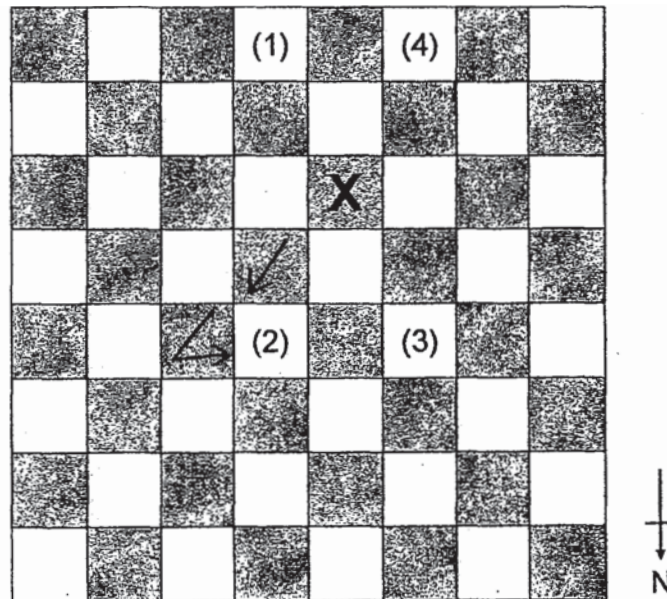
- (1) \$ (4 + y)
- (2) \$ (4 + 2y)
- (3) \$ (10 + 2y)
- (4) \$ (10 + 3y)

13. The base area of the container is  $16 \text{ m}^2$ . The length of one side of its base is half the height of the container. Find the volume of the container.



- (1)  $1024 \text{ m}^3$
  - (2)  $128 \text{ m}^3$
  - (3)  $64 \text{ m}^3$
  - (4)  $32 \text{ m}^3$
14.  $1 + 2 + 3 + \dots + 23 + 24 + 25$   
When the first 25 whole numbers are added, what is the digit in the ones place of this total?
- (1) 7
  - (2) 6
  - (3) 3
  - (4) 5

15. From the square marked 'X', a chess piece is moved 2 squares northeast and 1 square west. Which of the following is the position of the chess piece now?



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- End of Booklet A -



## **2018 PRIMARY 6 PRELIMINARY EXAMINATION**

Name : \_\_\_\_\_ (    )    Date: 1 August 2018

Class : Primary 6 (    )

Time: 8.00 a.m. - 9.00 a.m.

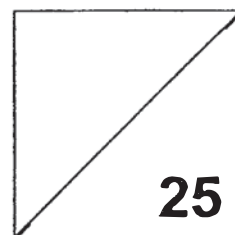
Parent's Signature : \_\_\_\_\_

**Paper 1 comprises 2 booklets, A and B.**

### **MATHEMATICS**

#### **PAPER 1**

#### **(BOOKLET B)**



#### **INSTRUCTIONS TO CANDIDATE**

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. You are **not** allowed to use a calculator.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)

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16. Find the value of  $48.3 \div 6$ .

Ans: \_\_\_\_\_

---

17. Simplify  $20n - 3 + 10 - 19n$ .

Ans: \_\_\_\_\_

---

18. Will is 12 years 4 months old. His sister is 3 years and 7 months younger than him. How old is Will's sister?

Ans: \_\_\_\_\_ years \_\_\_\_\_ months

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19. An insect crawls at a speed of 14 cm/s. Find the time it takes to crawl 700 cm.

Ans: \_\_\_\_\_ s

---

20. The average height of Plant A, Plant B and Plant C is 80 cm.  
Plant A is 60 cm tall and Plant B is 70 cm tall. What is the height of Plant C?

Ans: \_\_\_\_\_ m

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Questions 21 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

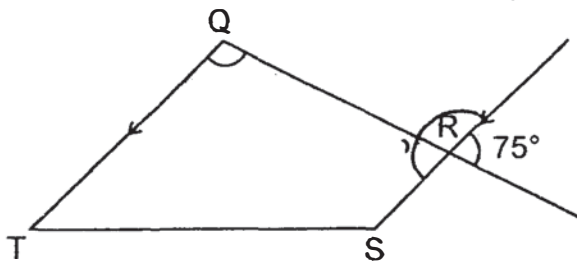
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21. A mug is  $\frac{1}{3}$ -filled with water. Samad pours all the water into a bottle which has a volume twice that of the mug. What fraction of the bottle is filled with water?

Ans: \_\_\_\_\_

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22. Find  $\angle TQR$ .



Ans: \_\_\_\_\_ °

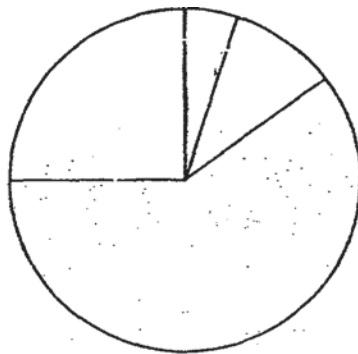
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23. The table below shows the results of a survey on 500 pupils.

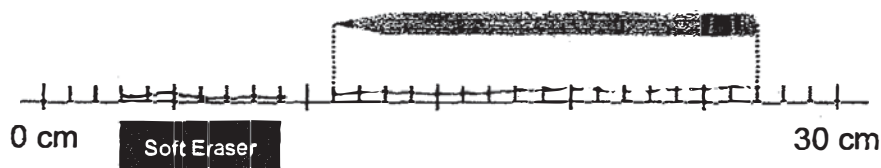
Survey question: How often do you and your family eat out in a week?

Group	Size of group	Response
A	a small number	not at all
B	twice that of Group A	once
C	more than half	twice
D	125 pupils	thrice or more

A pie chart is drawn to represent the results of the survey.  
Write letters A, B, C and D in the correct part of the pie chart.

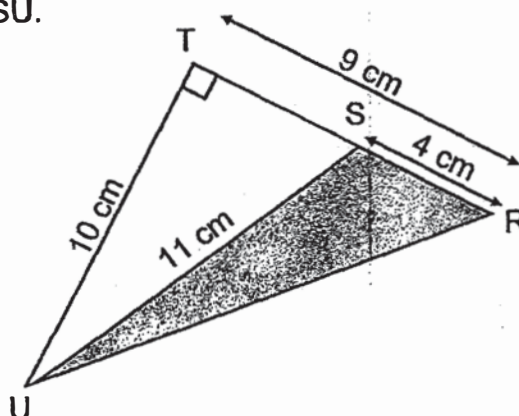


- 
24. What is the difference in length between the pencil and eraser?



Ans: \_\_\_\_\_ cm

25. Find the shaded area of Triangle RSU.

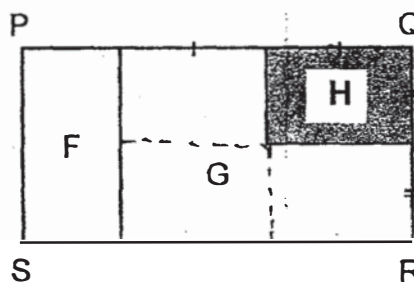


Ans: \_\_\_\_\_  $\text{cm}^2$

26. Lakhi has 80 cards. She buys more cards and has 100 cards now. What is the percentage increase in Lakhi's number of cards?

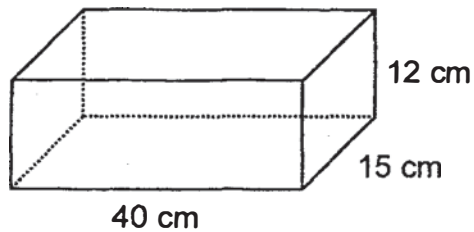
Ans: \_\_\_\_\_ %

27. Rectangle PQRS is made up of Area F, Area G and Area H.  
Area F is  $\frac{1}{4}$  of Rectangle PQRS. What fraction of Rectangle PQRS is shaded?



Ans: \_\_\_\_\_

28. A rectangular tank 40 cm long, 15 cm wide and 12 cm high is filled with 6 l of water. Find the increase in height of the water level when it is filled to the brim.



Ans: \_\_\_\_\_ cm

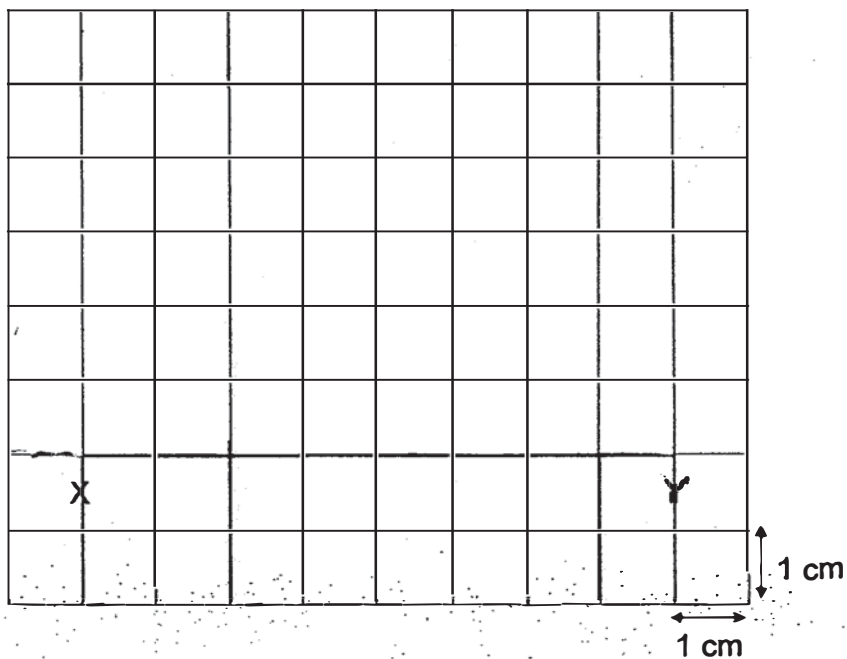
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29. A number has three decimal places. When rounded to the nearest tenth, the value of the number is 1.3. What is the greatest and smallest possible value of the number?

Ans: greatest – \_\_\_\_\_  
smallest – \_\_\_\_\_

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30. Using the grid below, draw trapezium WXYZ such that  $\angle XYZ$  is  $45^\circ$  and  $WX = ZW = 4$  cm.



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End of Booklet B  
End of Paper 1



## **2018 PRIMARY 6 PRELIMINARY EXAMINATION**

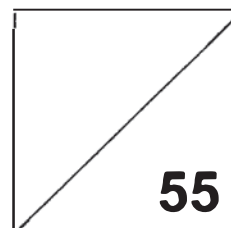
Name : \_\_\_\_\_ (    )    Date: 1 August 2018

Class : Primary 6 (    )

Time: 10.30 a.m. - 12 noon

Parent's Signature : \_\_\_\_\_

### **MATHEMATICS PAPER 2**



#### **INSTRUCTIONS TO CANDIDATE**

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are allowed to use a calculator.

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

1. There are 105 passengers in a train carriage. The ratio of the number of adults to the number of children is 2 : 1. Then, 15 adults and 10 children alighted from the train. What is the new ratio of the number of adults to the number of children? (Leave your answer in its simplest form)

Ans: \_\_\_\_\_

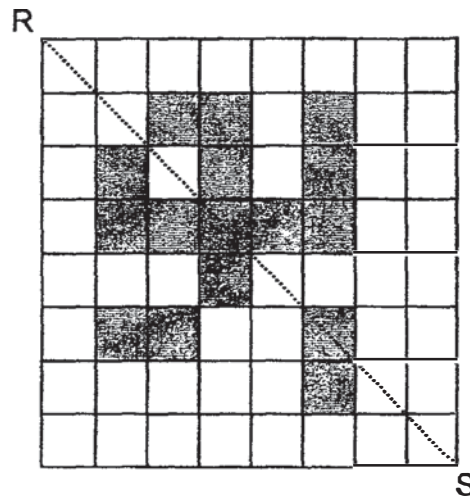
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2. In a school of 1500 pupils, there are 630 girls.  $\frac{1}{5}$  of the boys and  $\frac{1}{3}$  of the girls do not wear spectacles. How many pupils wear spectacles?

Ans: \_\_\_\_\_

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3. The figure is made up of identical squares. Shade two more squares so that RS is the line of symmetry for the figure.

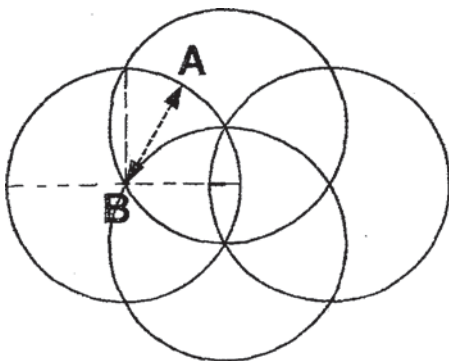


4. Devi bought  $r$  packets of flour. Each packet contained 2 kg of flour. She used 1 kg of flour and gave  $r$  kg of flour to her mother. How much flour was left?

Ans: \_\_\_\_\_ kg

5. The pattern is made up of 4 identical circles. The ink tip of a machine moves a total distance of 44 m to trace out the pattern as shown below. Every part of the pattern is traced only once. Find the distance between A and B.

(Take  $\pi = \frac{22}{7}$ )

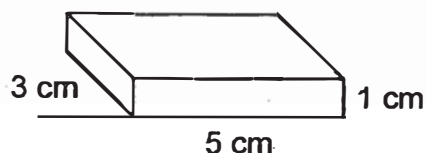


Ans: \_\_\_\_\_ m

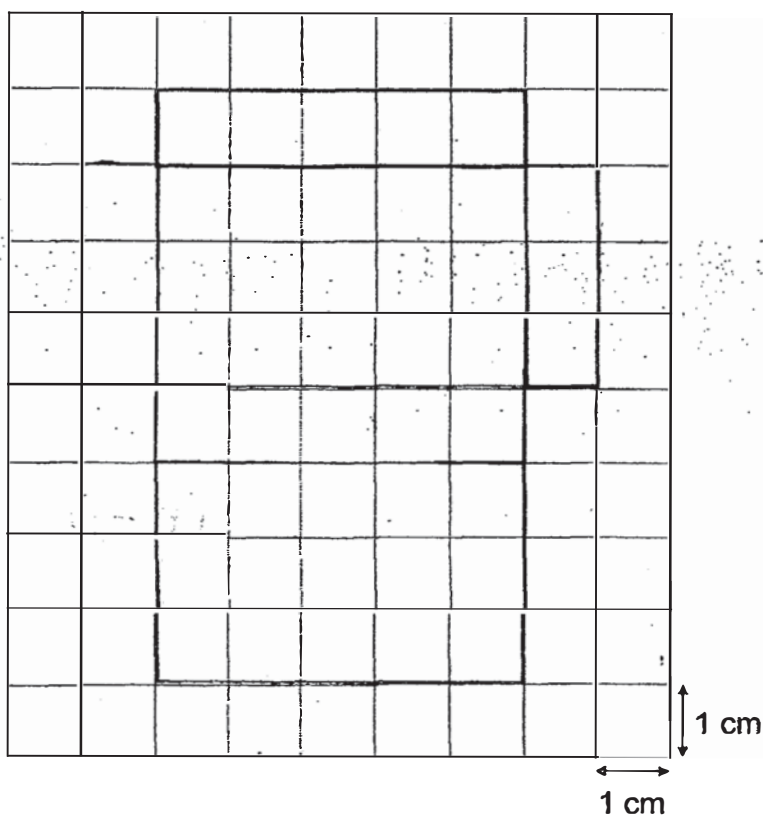


For questions 6 to 17, show your working clearly in the space provided for each question and write your answers in the spaces provided.  
The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

6. (a) Name the solid below.

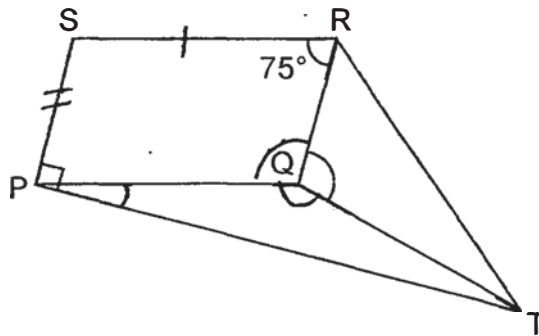


- (b) – Complete the net of the solid using the grid. [2]



Ans: (a) \_\_\_\_\_ [1]

7. In the figure, PQRS is a parallelogram.  $PQ = QT$  and  $\angle QRS = 75^\circ$ . Find  $\angle TQR$ .

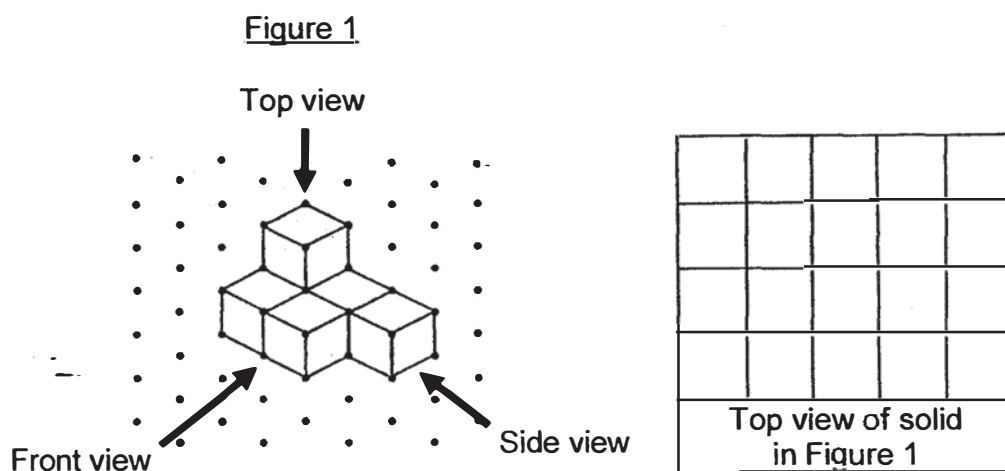


Ans: \_\_\_\_\_ [4]

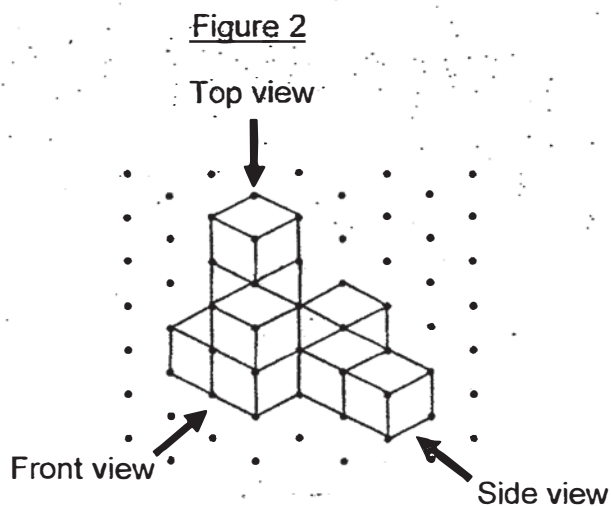
8. The total value of the numbers printed on some cards is 504. Each card is printed with a different 3-digit odd number. The average value of all the numbers is 126. The difference between the greatest and smallest number is 6. Find the smallest number printed on the cards.

Ans: \_\_\_\_\_ [3]

9. The solid as shown in Figure 1 is built using 1-cm cubes.
- (a) Looking at the solid from the front view, draw its top view in the given square grid. [1]



- (b) Identical 1-cm cubes are added to form a new solid as shown in Figure 2.



- (i) How many 1-cm cubes are added to form the new solid?
- (ii) Find the volume of the new solid.

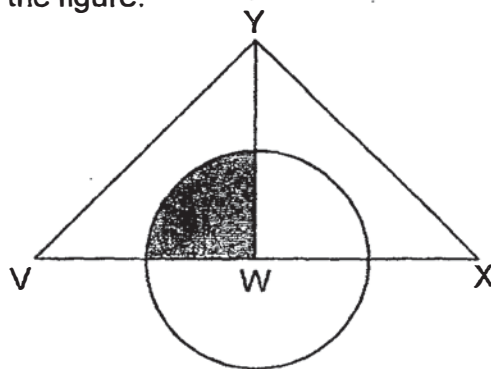
Ans: (b) (i) \_\_\_\_\_ [1]

(ii) \_\_\_\_\_ [1]

10. In a 100-metre race, Kane was 2 m behind when Jaah reached the finish line. Jaah's speed was 7 m/s. Find Kane's speed.

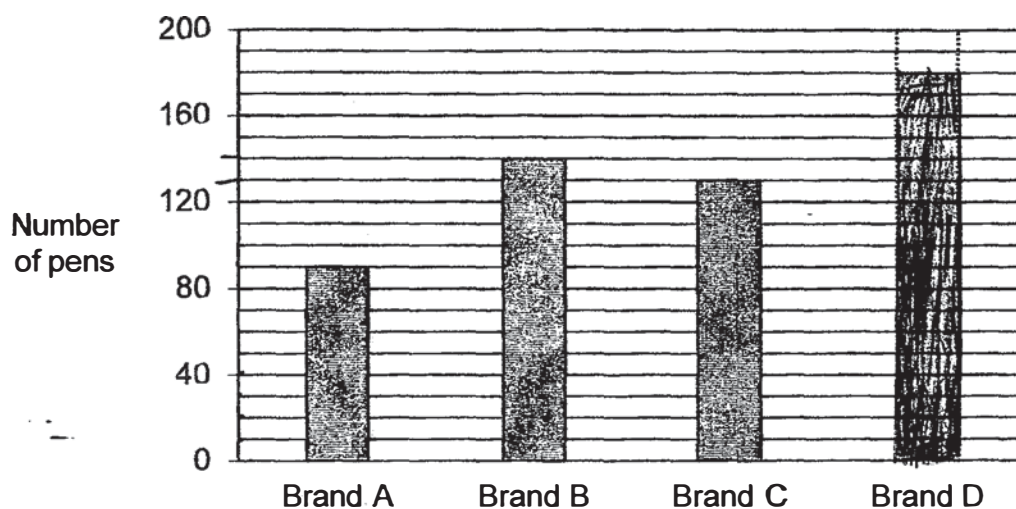
Ans: \_\_\_\_\_ [3]

11. The figure is made up of a circle and 2 identical right-angled triangles. W is the centre of the circle.  $\frac{11}{28}$  of Triangle VWY is shaded. Find the ratio of the area that is **not** shaded to the total area of the figure.



Ans: \_\_\_\_\_ [3]

12. The bar graph shows the number of each brand of pen sold in a shop.



The prices of the pens are shown in the table below.

Brand	Price per pen
A	\$3.50
B	\$2.40
C	\$2.50
D	\$1.80

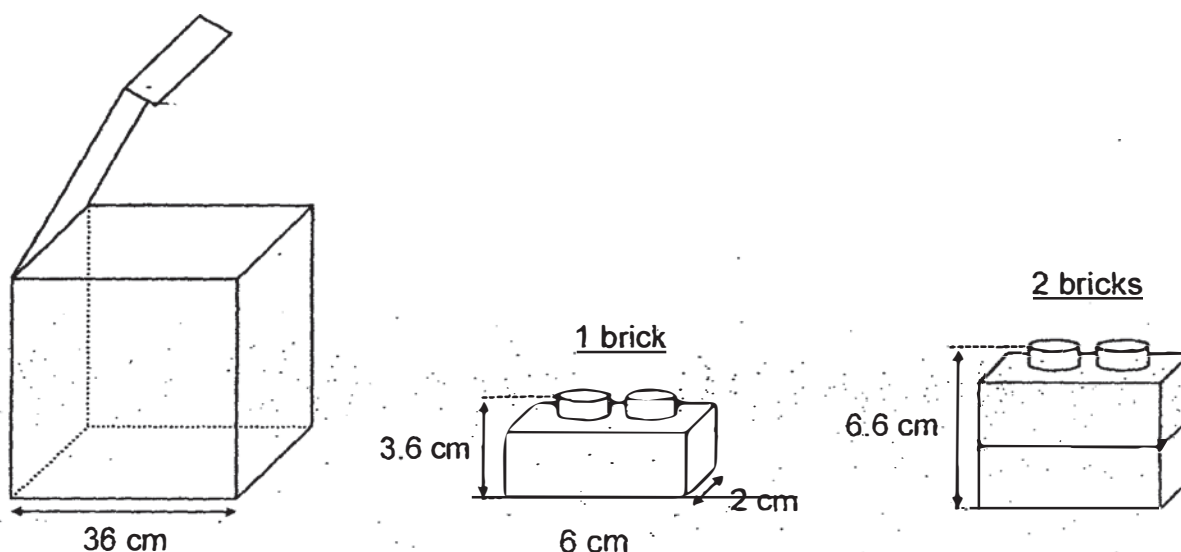
- (a) How many Brand B pens were sold?      **Ans:** \_\_\_\_\_ [1]
- (b) There were twice as many Brand D pens as Brand A pens sold.  
**Draw** the bar to show the number of Brand D pens sold. [1]
- (c) Each statement below is either true, false or not possible to tell from the graph. For each statement, **put a tick (✓)** in the correct column. [2]

	Statement	True	False	Not possible to tell
(i)	The greatest amount of money is collected from the sale of Brand B pens.			
(ii)	The shop makes the most amount of money from the sale of Brand D pens.			

13. Plastic bricks measuring 6 cm by 2 cm by 3.6 cm each are put into a cubical box with a flap cover.

- (a) How many bricks touch only the base of the box?
- (b) Find the most number of bricks that can be put inside the box such that the cover can be closed completely.




*The diagrams are not drawn to scale.*



Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

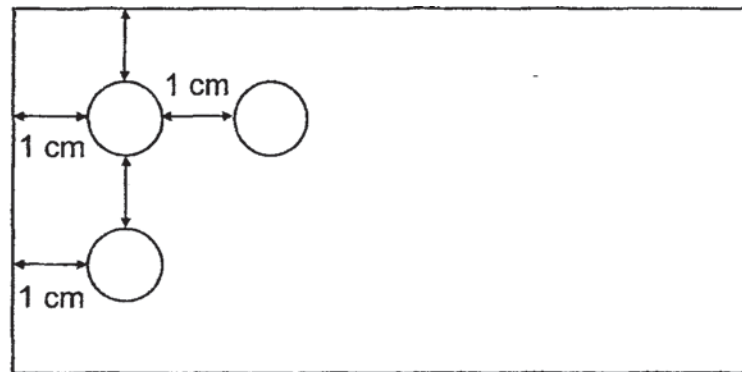
14.

	Small	Medium	Large
			
<b>Capacity</b>	250 ml	500 ml	750 ml

35 l of water is used to fill up bottles of 3 different capacities as shown above. There is an equal number of small-sized bottles and large-sized bottles. The number of medium-sized bottles is three times the number of small-sized bottles. How much water is used to fill up all the medium-sized bottles?

Ans: \_\_\_\_\_ [4]

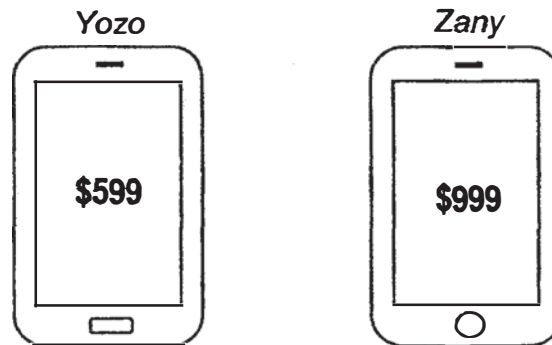
15. The cardboard, not drawn to scale, has a perimeter of 64 cm. It has holes punched in such a way that each hole has equal distance from the ones around it and from the sides of the cardboard. There are 10 holes along its length. The diameter of each hole is 1 cm. Find the number of holes along its breadth.



Ans: \_\_\_\_\_ [5]



16. Shop A and Shop B sold two types of mobile phones at the prices as shown below.



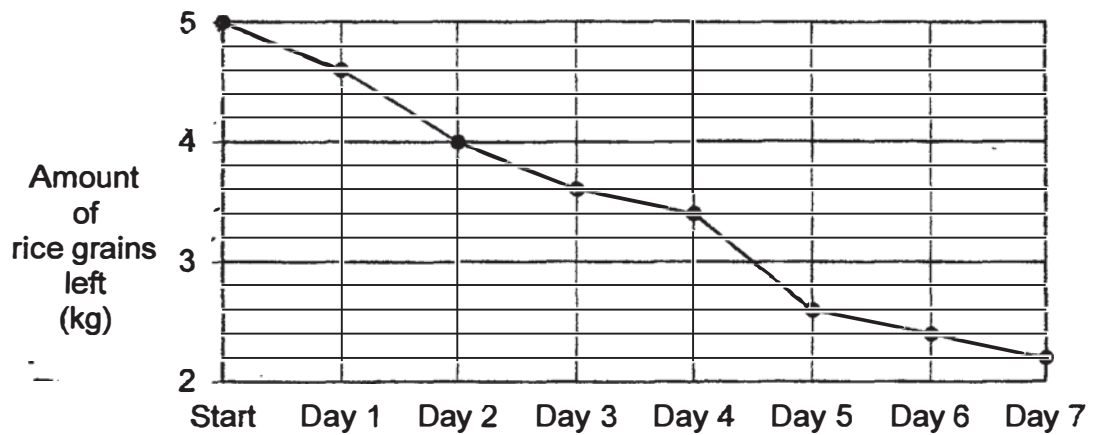
Shop A and Shop B sold the same number of mobile phones last month.  
Shop A sold 13 Yozo phones and some Zany phones. Shop B sold 15 Zany phones and some Yozo phones.  
The total amount Shop A collected was \$2000 less than Shop B.

- (a) How many Yozo phones did Shop B sell?
- (b) How much money did Shop A collect?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

17. A housewife buys a 5-kg pack of rice grains. The graph shows the amount of rice grains left at the end of each day for a week.



- (a) On which day was the most amount of rice grains consumed?
- (b) What percentage of the 5-kg pack of rice grains was consumed by Day 3?
- (c) 200 g of rice grains fills 1 measuring cup. How many cups of rice grains were left at the end of Day 7?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

(c) \_\_\_\_\_ [1]

---

End of Paper 2



# ANSWER KEY

YEAR : 2018  
 LEVEL : PRIMARY 6  
 SCHOOL : TAO NAN  
 SUBJECT : MATHEMATICS

## Booklet A - Pa

Q1	3	Q2	2	Q3	2	Q4	1	Q5	3
Q6	3	Q7	2	Q8	1	Q9	4	Q10	4
Q11	4	Q12	1	Q13	2	Q14	4	Q15	2

## Booklet B - Paper 1

Q16) 8.05

Q17)  $(n - 3 + 10 = n + 7)$

Ans:  $n + 7$

Q18) 12 years 4 months = 11 years 16 months

11 years 16 months - 3 years 7 months = 8 years 9 months

Ans: 8 years 9 months

Q19)  $700 \div 14 = 50$

Ams: 50s

Q20)  $80 \times 3 = 240$

$240 - 70 - 60 = 110$

$110\text{cm} = 1.1\text{m}$

Ans: 1.1m

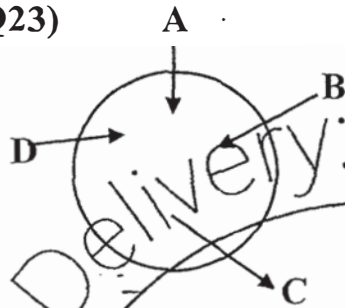
Q21)  $3 \times 2 = 6$

Ans:  $\frac{1}{6}$

Q22)  $\angle TQR = 180^\circ - 75^\circ = 105^\circ$

Ans:  $105^\circ$

Q23)



Q24) Eraser = 6cm

Pencil = 16cm

$16 - 6 = 10$

Ans: 10cm

Q25)  $\frac{1}{2} \times \frac{10}{1} \times \frac{9}{1} = 45$

$9 - 4 = 5$

$\frac{1}{2} \times 5 \times 10 = 25$

$45 - 25 = 20$

Ans: 20cm

Q26)  $100 - 80 = 20$

$100\% = 80 \text{ cards}$

$80 \div 100 = 0.8$

$20 \div 0.8 = 20 \div \frac{8}{10} = 20 \times \frac{10}{8} = \frac{200}{8} = 25$

Ans: 25%

Q27)  $\frac{1}{4} \times \frac{3}{4} = \frac{3}{16}$

Ans:  $\frac{3}{16}$

Q28)  $6000 \div 40 \div 15 = 10$

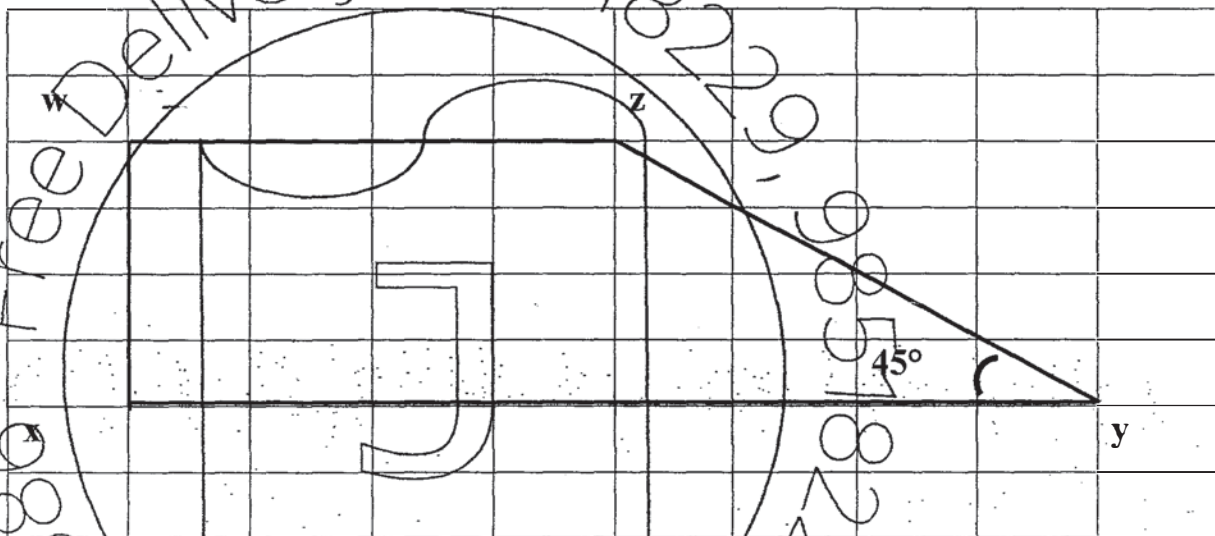
$$12 - 10 = 2$$

Ans: 2cm

Q29) Greatest = 1.349

Smallest = 1.250

Q30)



Paper 2

Q1)  $105 \div 3 = 35$

$$35 \times 2 = 70$$

A	C
70	35
-15	-10
55	25
11	5

Ans: 11 : 5

Q2)  $\frac{1}{3} \times 630 = 210$

$1500 - 630 = 870$

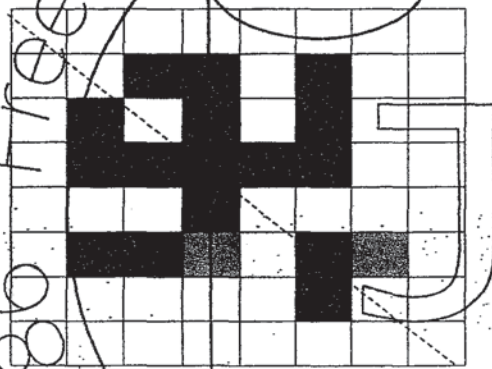
$\frac{1}{5} \times 870 = 174$

$1500 - 210 - 174 = 1116$

Ans: 1116

Q3)

R



Q4)  $r \times 2 = 2r$

$2r - 1 - r = 1r - 1 = (1r - 1) \text{ kg}$

Ans:  $(1r - 1) \text{ kg}$

Q5)  $2 \times \frac{22}{7} \times r \times 4 = \frac{176r}{7}$

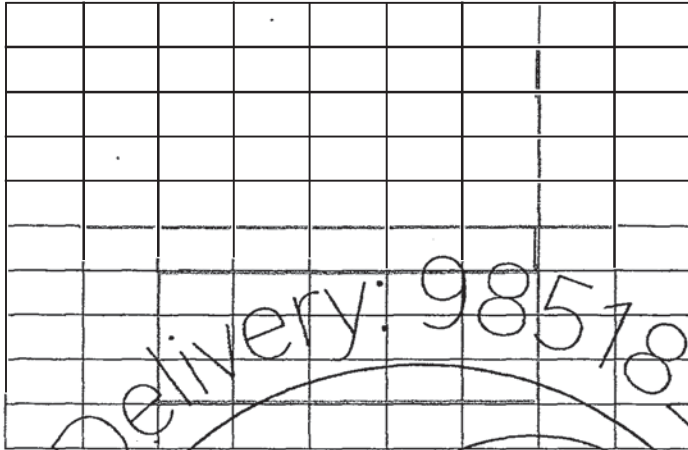
$\frac{176r}{7} = 44$

$R = \frac{44}{176} \times 7 = 1.75$

Ans: 1.75m

Q6a) cuboid

Q6b)



Q7)  $\angle TPQ = 90^\circ - 75^\circ = 15^\circ$

$\angle RSP = \angle RQP = 180^\circ - 75^\circ = 105^\circ$

$\angle PQT = 180^\circ - 15^\circ - 15^\circ = 150^\circ$

$\angle TQR = 360^\circ - 150^\circ - 105^\circ = 105^\circ$

Ans:  $105^\circ$

Q8)  $504 \div 126 = 4$

$6 \div 3 = 2$

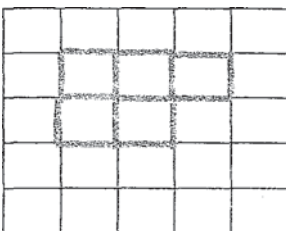
$6 \times 2 = 12$

$504 - 12 = 492$

$492 \div 4 = 123$

Ans: 123

Q9a)



Q9bi) 4

S



Q9bii)  $6 + 4 = 10$

$$1 \times 1 \times 1 = 1$$

$$10 \times 1 = 10$$

Ans:  $10\text{cm}^3$

Q10)  $\frac{100}{7} = 14\frac{2}{7}$

$$100 \div 2 = 98$$

$$98 \div 14\frac{2}{7} = 6.86$$

Ans:  $6.86\text{m/s}$

Q11)  $28 - 11 = 17$

$$2 \times 17 = 34$$

$$22 + 11 + 17 + 17 = 67$$

$$67 + 11 = 78$$

NS : TA

$$67 : 78$$

Ans:  $67 : 78$

Q12a) 140

Q12b) Draw till 180

Q12c) True

Q12cii) Not possible to tell

Q13a)  $36 \div 6 = 6$

$$36 \div 2 = 18$$

$$6 \times 18 = 108$$

Ans: 108

Q13b)  $6.6 - 3.6 = 3$

$36 \div 3 = 12$

$12 - 1 = 11$

$108 \times 11 = 1188$

Ans: 1188

Q14)  $250u + 3u \times 500 + 750u = 35000$

$250u + 1500u + 750u = 35000$

$2500u = 35000$

$u = 35000 \div 2500 = 14$

$3u = 3 \times 14 = 42$

$42 \times 500\text{ml} = 21000 = 21\ell$

Ans: 21 ℓ

Q15)  $64 \div 2 = 32$

10 holes  $\rightarrow 10 \times 1\text{cm} = 10\text{cm}$

11 gaps  $\rightarrow 11 \times 1 = 11\text{cm}$

$10\text{cm} + 11\text{cm} = 21\text{cm}$

$13 = 32 - 21 = 11\text{cm}$

13 minus 1 gap at one end  $11 - 1 = 10$

1 gap + 1 hole  $= 1 + 1 = 2\text{cm}$

Number of sets  $= 10 \div 2 = 5$

Ans: 5cm

Q16a)  $A = 13 \times 599 = 7787$

$B = 15 \times 999 = 14985$

Shop A and B sold same number of phones.

$$\$999 - \$599 = \$400$$

$$\$2000 \div 400 = 5 \text{ less Zany phone}$$

$$15 - 5 = 10$$

$$13 + 10 = 23$$

$$23 - 15 = 8$$

Ans: 8

$$\text{Q16b) } 999 \times 15 = 14985$$

$$599 \times 13 = 7787$$

$$8 \times 599 = 4792$$

$$14985 + 4792 = 19777$$

$$10 \times 999 = 9990$$

$$9990 + 7787 = 17777$$

$$19777 - 17777 = 2000$$

Ans: \$17.777

Q17a) Day 5

$$\text{Q17b) } 5 - 3.6 = 1.4$$

$$\frac{1.4}{5} \times 100\% = 28\%$$

Ans: 28%

$$\text{Q17c) } 2.2\text{kg} = 2200\text{g}$$

$$2200 \div 200 = 11$$

Ans: 11

END





**Temasek Primary School**  
**Preliminary Examination**  
**Primary Six Standard**  
**2018**  
**MATHEMATICS**  
**(PAPER 1 BOOKLET A)**

Name: \_\_\_\_\_ (     ) Class: 6 (     )

Date : 21 August 2018

Total Time for Booklets A and B : 1 hour

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers on the Optical Answer Sheet (OAS) provided.
5. You are not allowed to use a calculator.
6. This booklet consists of 10 printed pages.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each.  
For each question, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.  
(20 marks)

---

1. The value of the digit 5 in 865 973 is \_\_\_\_\_.

- (1) 50
- (2) 500
- (3) 5 000
- (4) 50 000

2. Express 8 050 cm in m.

- (1) 8.05 m
- (2) 8.5 m
- (3) 80.5 m
- (4) 805 m

3. How many quarters are there in  $8\frac{1}{2}$ ?

- (1) 17
- (2) 20
- (3) 32
- (4) 34

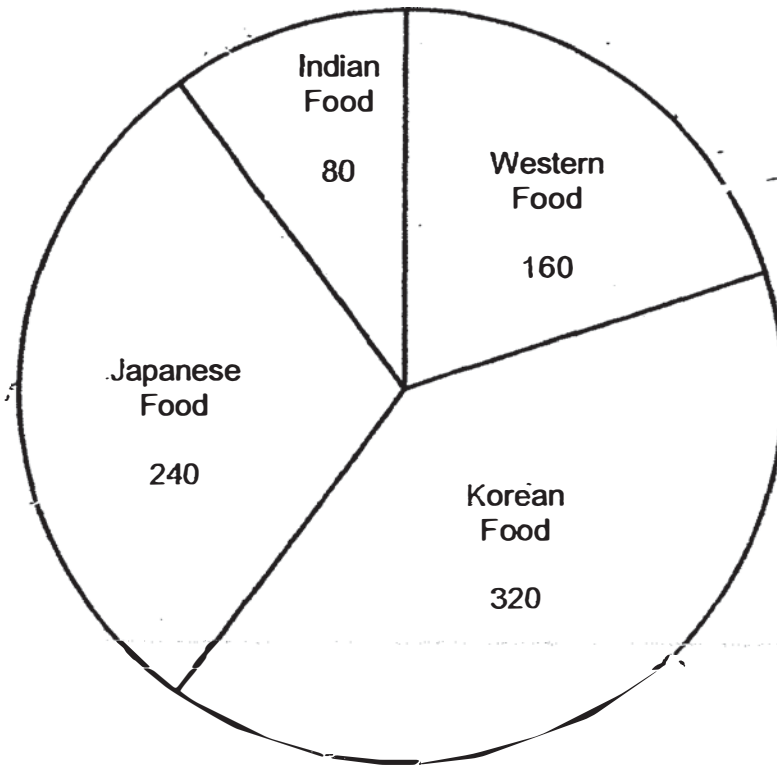
4. Find the value of  $11y - 5 + \frac{7y}{4}$  when  $y = 8$ .

- (1) 220
- (2) 180
- (3) 97
- (4) 64

5. A rectangular block of wood measuring 50 cm by 5 cm by 5 cm was cut into five equal pieces. What was the volume of each piece of wood?

- (1) 210 cm<sup>3</sup>
- (2) 250 cm<sup>3</sup>
- (3) 1 050 cm<sup>3</sup>
- (4) 1 250 cm<sup>3</sup>

6. A group of 800 students was asked to choose their favourite food. The pie chart below shows their choices and the number of students who chose each type of food. Which type of food was chosen by 40% of the students?



- (1) Indian Food
- (2) Korean Food
- (3) Western Food
- (4) Japanese Food

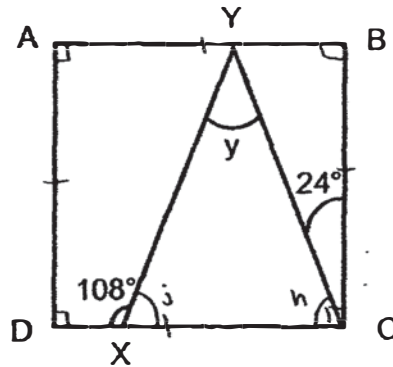


7. The table below shows the scores obtained by Choon Tuck in an online game.

Online Game	Score
Game 1	10
Game 2	25

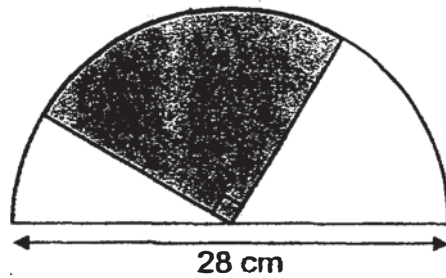
Find the percentage increase in Choon Tuck's scores from Game 1 to Game 2.

- (1) 150%  
 (2) 100%  
 (3) 60%  
 (4) 40%
8. The figure below is not drawn to scale. ABCD is a square. CXY is a triangle.  $\angle DXY = 108^\circ$  and  $\angle BCY = 24^\circ$ . Find  $\angle y$ .



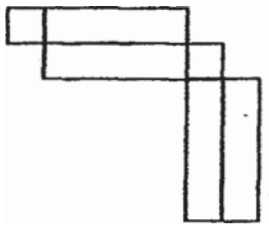
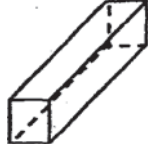
- (1)  $42^\circ$   
 (2)  $48^\circ$   
 (3)  $66^\circ$   
 (4)  $72^\circ$

9. The figure below is not drawn to scale. It shows a shaded quadrant in a semicircle. The diameter of the semicircle is 28 cm. Find the total area of the unshaded parts. (Take  $\pi = \frac{22}{7}$ )

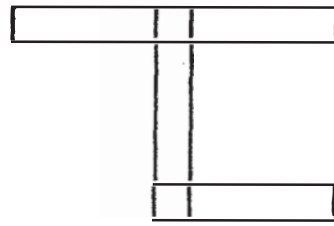


- (1) 144 cm<sup>2</sup>
- (2) 154 cm<sup>2</sup>
- (3) 308 cm<sup>2</sup>
- (4) 616 cm<sup>2</sup>

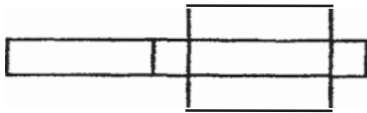
10. Which of the following figure is not a net of the solid below?



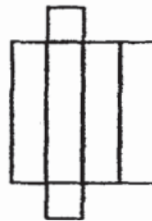
(1)



(2)



(3)

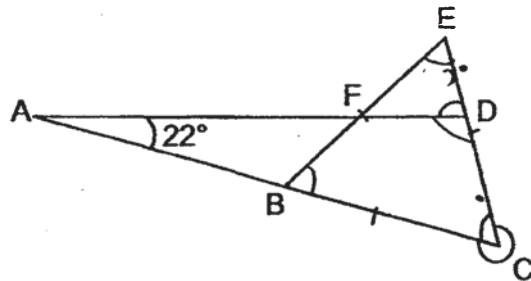


(4)

11. A group of Brownies calculated their average collection from a fundraising. They discovered that if one of them collected \$200 more, their average collection would be \$240. If one of them collected \$340 less, their average collection would be \$180. How many Brownies were there in the group?

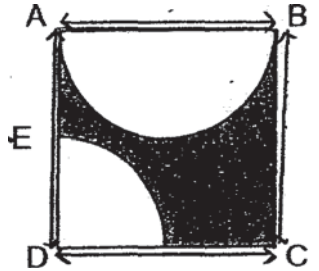
- (1) 9
- (2) 8
- (3) 5
- (4) 4

12. The figure below is not drawn to scale. BCE is an equilateral triangle. ABC and AFD are straight lines. If  $\angle BAF = 22^\circ$ , what is the difference between the marked angles,  $\angle EDF$  and  $\angle BCD$ ?



- (1)  $338^\circ$
- (2)  $300^\circ$
- (3)  $278^\circ$
- (4)  $218^\circ$

13. The figure below is not drawn to scale. ABCD is a square of area  $100 \text{ m}^2$ . A semicircle and a quadrant lie within Square ABCD.  $AE = ED$ . Find the area of the shaded part. (Leave your answer in terms of  $\pi$ .)

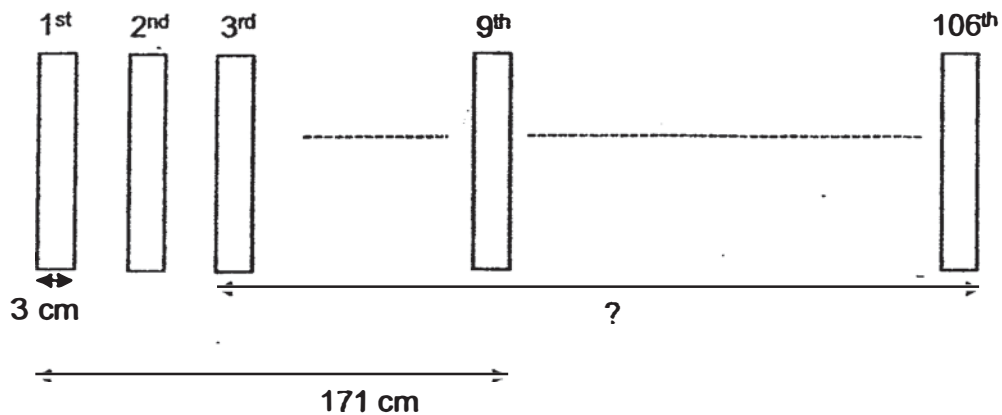


- (1)  $(100 - 6\frac{1}{4}\pi) \text{ m}^2$
- (2)  $(100 - 7\frac{1}{2}\pi) \text{ m}^2$
- (3)  $(100 - 12\frac{1}{2}\pi) \text{ m}^2$
- (4)  $(100 - 18\frac{3}{4}\pi) \text{ m}^2$

14. There were 800 adults at a carnival. 80% of them were women. Halfway through, some women left the carnival. The ratio of the number of women to the number of men became  $7 : 4$ . How many women left the carnival?

- (1) 280
- (2) 360
- (3) 480
- (4) 640

15. Nine identical rectangular cards are placed in a straight line at an equal distance from one another as shown below. The total distance taken from the 1<sup>st</sup> card to the 9<sup>th</sup> card is 171 cm. The width of each rectangular card is 3 cm.



What is the total distance taken from the 3<sup>rd</sup> card to the 106<sup>th</sup> card?

- (1) 2166 cm
- (2) 2160 cm
- (3) 1989 cm
- (4) 1957 cm

End of Booklet A

(Go on to Booklet B)



**Temasek Primary School**  
**Preliminary Examination**  
**Primary Six Standard**  
**2018**  
**MATHEMATICS**  
**(PAPER 1 BOOKLET B)**

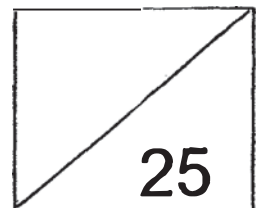
Name: \_\_\_\_\_ (     ) Class: 6 (     )

Date : 21 August 2018

Total Time for Booklets A and B : 1 hour

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. You are not allowed to use a calculator.
6. This booklet consists of 9 printed pages.



Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided.  
For questions which require units, give your answers in the units stated. (5 marks)

---

16. Find the value of  $66 - (36 + 3) \div 3$ .

Ans: \_\_\_\_\_

---

17. Find the value of  $22.62 \div 30$ .

Ans: \_\_\_\_\_

---

18. The mass of flour in a bag was 5 kg. It was repacked into packets of  $\frac{2}{5}$  kg each.  
What was the most number of packets of flour that were repacked?

Ans: \_\_\_\_\_

---

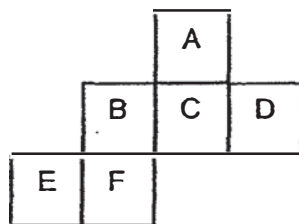


19. Alice, Bernice and Clarissa sold 320 donation cards in the ratio of 4 : 3 : 1. How many donation cards did Alice sell?

Ans: \_\_\_\_\_

---

20. The figure below shows the net of a cube. The net is folded to make a cube. Which letter is opposite letter "F"?



Ans: \_\_\_\_\_

---

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

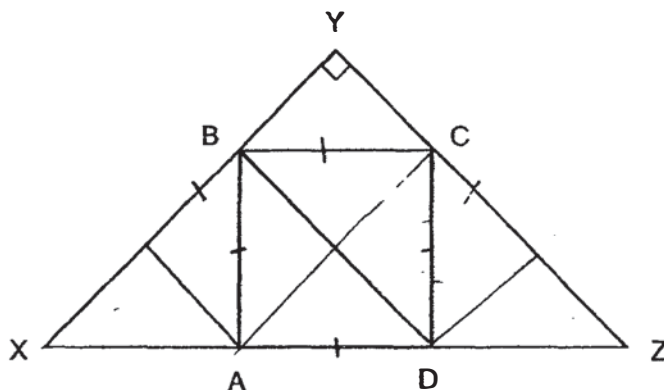
21. A group of children donated \$200 altogether. The table below shows the amount of money donated by each child in the group.

Amount of money donated per child	\$1	\$2	\$3	\$4
Number of children	35	24	15	?

How many children donated \$4?

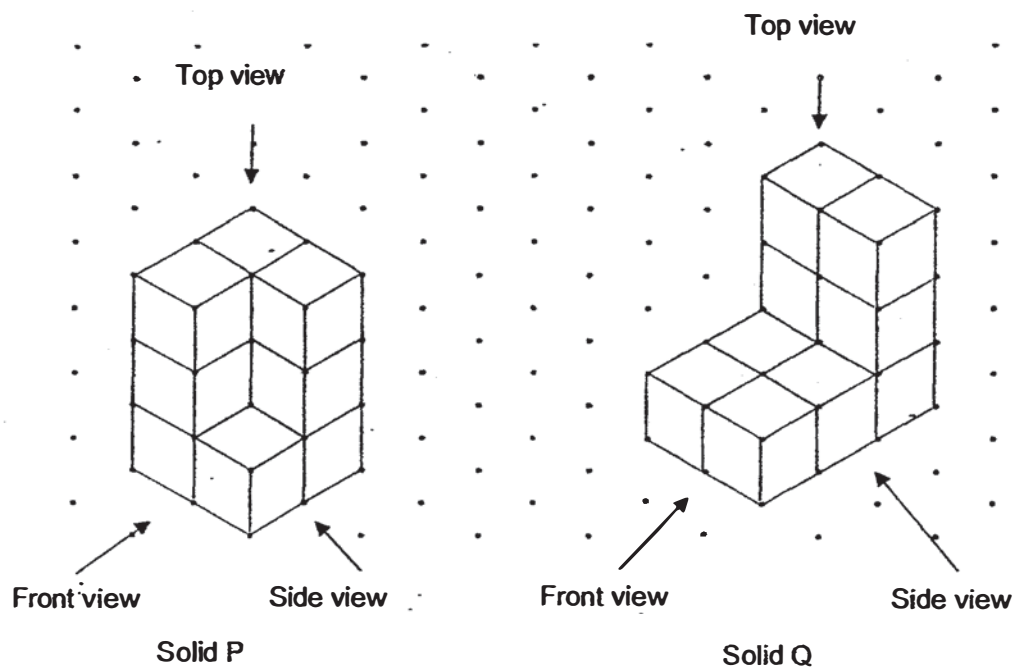
Ans: \_\_\_\_\_

22. The figure below is not drawn to scale. ABCD is a square. XYZ is a right-angled isosceles triangle of area  $108 \text{ cm}^2$ . Find the area of Square ABCD.



Ans: \_\_\_\_\_  $\text{cm}^2$

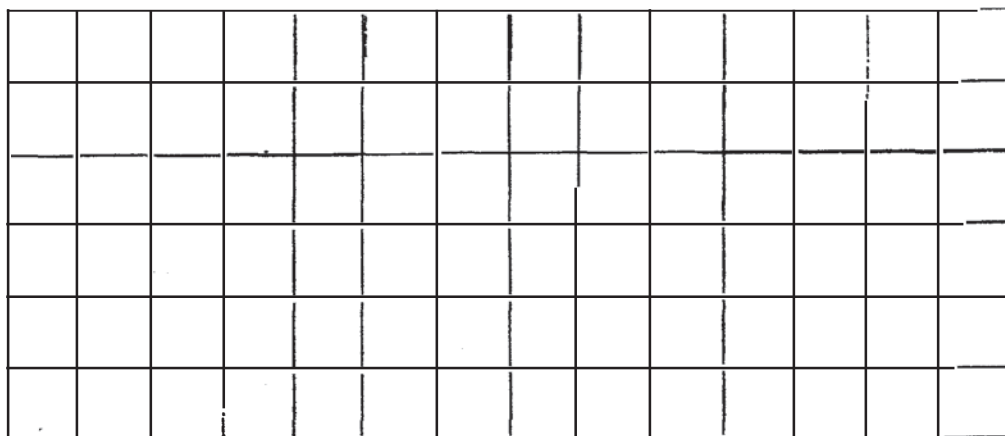
23. Study the solids below carefully.



(a) Name the view of Solid P and Solid Q that is the same. (1 mark)

Ans: (a) \_\_\_\_\_

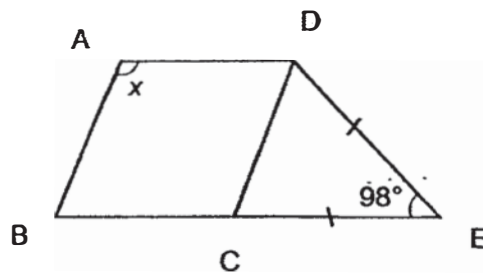
(b) Draw the view of Solid P and Solid Q that is the same below. (1 mark)



24. At a bookshop, 3 identical pens cost as much as 2 identical notebooks. Each pen costs \$0.80 less than each notebook. What is the cost of a notebook?

Ans: \$ \_\_\_\_\_

25. The figure below is not drawn to scale. ABCD is a rhombus. CDE is an isosceles triangle. BCE is a straight line.  $CE = DE$  and  $\angle CED = 98^\circ$ . Find  $\angle x$ .



Ans: \_\_\_\_\_°

26. Joyce was given a fixed amount of pocket money each month. In January, she spent \$100 and saved the rest. In February, she spent 10% less and her savings increased by 25%. How much was Joyce's pocket money for each month?

Ans: \_\_\_\_\_

- 
27. Bedok and Kuala Lumpur are about 360 km apart. At 9.00 a.m., Mr Chong travelled from Bedok to Kuala Lumpur while Mr Ma travelled from Kuala Lumpur to Bedok. Mr Chong's speed was 80 km/h while Mr Ma's speed was 70 km/h. Both of them did not change their speeds throughout their journeys. At what time did they pass each other?

Ans: \_\_\_\_\_ a.m.

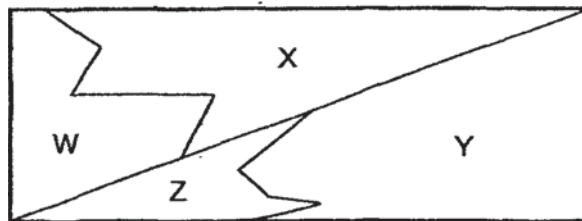
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28. Ming Ming gave \$60 to his sister and  $\frac{1}{5}$  of the remainder to his brother.

In the end, Ming Ming was left with  $\frac{2}{3}$  of his money. How much money did Ming Ming have at first?

Ans: \_\_\_\_\_

29. The rectangle below is divided into four parts W, X, Y and Z. The ratio of Area W to Area X is 3 : 5. The ratio of Area Y to Area Z is 1 : 2. What fraction of the total area is Area W? Give your answer in its simplest form.

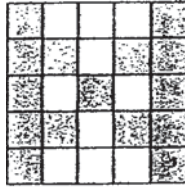


Ans: \_\_\_\_\_

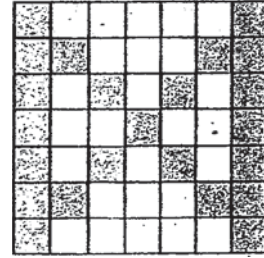
30. Azlinda formed the pattern below using white and grey tiles. Study the pattern carefully.



Pattern 1



Pattern



How many white tiles would Azlinda use to build Pattern 7?

Ans: \_\_\_\_\_

---

End of Paper



**Temasek Primary School**

**Preliminary Examination**

**Primary Six Standard**

**2018**

**MATHEMATICS**

**(PAPER 2)**

Name: \_\_\_\_\_ (     ) Class: 6 (     )

Date : 21 August 2018

Total Time : 1 hour 30 minutes

**INSTRUCTIONS TO CANDIDATES**

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. You are allowed to use a calculator.
6. This booklet consists of 15 printed pages

Paper	Max Mark	Score
Paper 1 Booklet A	20	
Paper 1 Booklet B	25	
Paper 2	55	
Total Mark	100	

Parent's Signature/Date: \_\_\_\_\_



Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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1. Lyndi had 15 m of cloth. She cut  $2y$  cm from it to give to Bob. She gave Lucas 30 cm of the cloth. She used all the remaining cloth to sew 7 similar dresses. If Lyndi used equal length of cloth for each dress, what is the length of cloth used for each dress? Give your answer in terms of  $y$ .

Answer: \_\_\_\_\_ cm

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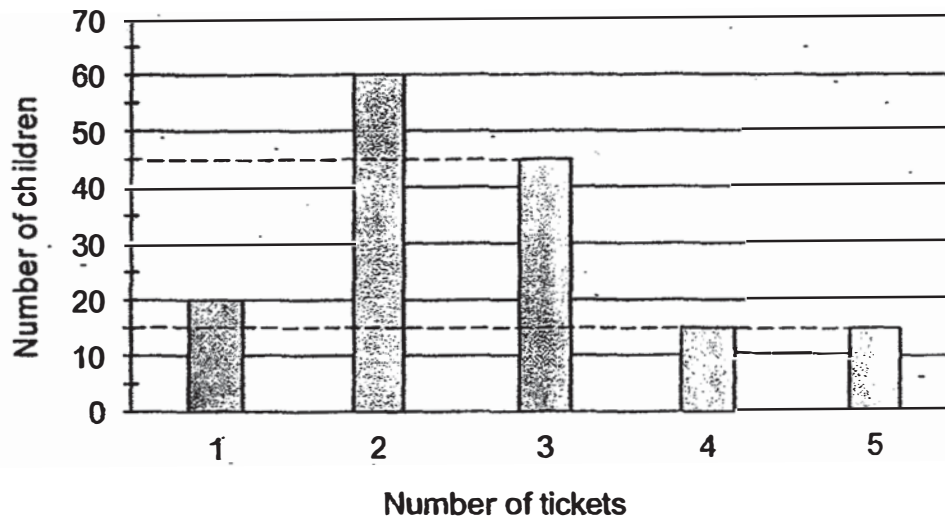
2. Dae made the cuboid shown below using cubes of sides 4 cm. What is the volume of the cuboid?



Answer: \_\_\_\_\_  $\text{cm}^3$

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3. The bar graph below shows the number of tickets sold for a concert to a group of children.



How many children purchased more than 2 tickets?

Answer: \_\_\_\_\_

4. A group of girls shared some sweets among themselves. When each girl took 11 sweets, the last girl had 16 sweets. When each girl took 8 sweets, there were 32 sweets left over. How many sweets were there altogether?

Answer: \_\_\_\_\_

- 
5. Jamie takes 6 days to paint a house. Her sister takes 10 days to paint the same house. If they work together, what fraction of the house will they be able to paint in 3 days? Give your answer in its simplest form.

Answer: \_\_\_\_\_

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For questions 6 to 17, show your working clearly and write your answers in spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

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6. Joash bought a total of 30 notebooks and pencil cases. Each notebook cost \$9 and each pencil case cost \$3 more. The total cost of the pencil cases is \$87 more than the total cost of the notebooks.

(a) How many notebooks did Joash buy?

(b) How much did he spend on all the pencil cases?

Answer: (a) \_\_\_\_\_ [2]

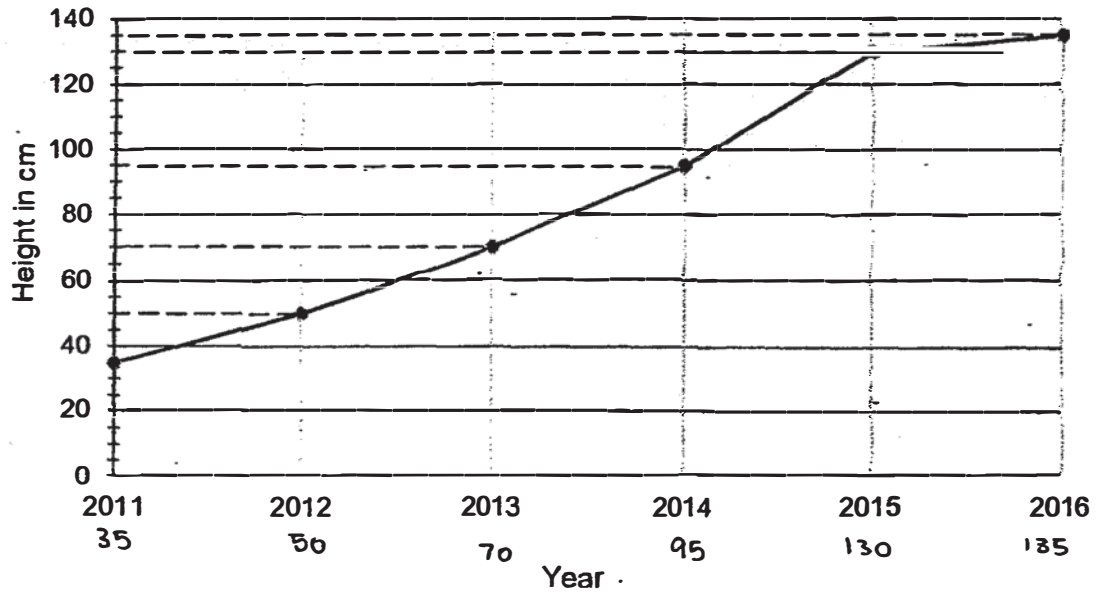
(b) \_\_\_\_\_ [1]

- 
7. Ken travelled from his house to the park. He ran  $\frac{1}{3}$  of the journey in 3 minutes and jogged  $\frac{3}{5}$  of the remaining journey. He walked the rest of the journey in 2.5 minutes at an average speed of 80m/min. What was Ken's running speed?

Answer: \_\_\_\_\_ [3]

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8. The line graph below shows the height of a mango tree measured in January of each year from 2011 to 2016.



(a) In which year was the height the mango tree twice its height in 2011?

(b) What was the average height of the mango tree from 2012 to 2015?

Answer: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

9. The table below shows the number of buns sold at a bakery last week.

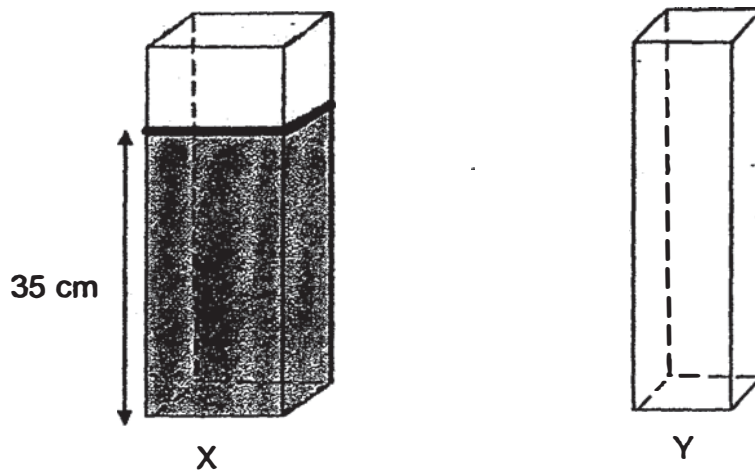
Day	Number of buns sold
Monday to Friday	$2y$ per day
Saturday	$y + 50$
Sunday	$3y - 15$

- (a) If  $y = 28$ , what was the total number of buns sold last week?
- (b) The buns were usually sold for \$1.50 each. However, there was a 40% discount on all the buns sold last week. How much did the bakery collect from the sales of all the buns last week?

Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [1]

10. X and Y are two rectangular containers. The base area of X is  $90 \text{ cm}^2$  while that of Y is  $60 \text{ cm}^2$ . At first, X contained water to a height of  $35 \text{ cm}$  and Y was empty, as shown below. Richard then poured some water from X to Y. After that, the height of the water level in X was 4 times that in Y. What was the new height of the water level in X?



Answer: \_\_\_\_\_ [3]

11. Roy had to paint a piece of paper. He painted  $\frac{1}{5}$  of the paper yellow and  $85 \text{ cm}^2$  of the paper red. He then painted  $\frac{1}{3}$  of the remainder green and the rest blue. If the area of the blue region is  $\frac{1}{4}$  of the area of the whole piece of paper, find the area of the paper.

Answer: \_\_\_\_\_ [3]

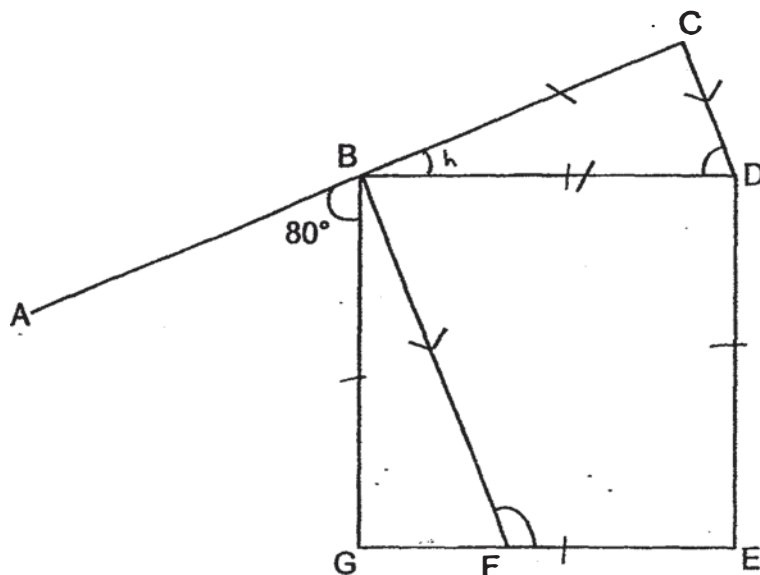
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12. In the figure below, not drawn to scale, BDEG is a square and BCD is an isosceles triangle. ABC is a straight line.  $BF \parallel CD$  and  $\angle ABG = 80^\circ$

(a) Find  $\angle BDC$ .

(b) Find  $\angle BFE$ .



Answer: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [3]

13. The table below shows the charges of a taxi company.

Flag Down	\$2.50
Every 200m up to 10km	\$0.10
Every 150m after 10km	\$0.10
Morning Surcharge (7.00 a.m. to 9.30 a.m.)	\$2.00

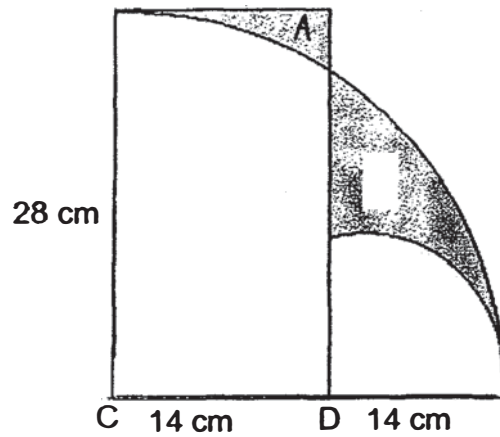
- (a) Rachel took a taxi to work at 11.00 a.m. and travelled a total distance of 16km. How much was her taxi fare?
- (b) Ryan paid \$18 for his taxi fare when he took a taxi at 8.30 a.m. What was the maximum distance he could have travelled?

Answer: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

14. The figure shows two quadrants of circles, centred at C and D respectively. Find the difference between the area of the two shaded regions.

(Take  $\pi = \frac{22}{7}$ )



Answer: \_\_\_\_\_ [4]

15. Marcus wants to make 35 large identical stars and 20 small identical stars using wire. He has made 20 large stars and 14 small ones using 12.48 m of wire. The length of wire he used for 5 small stars is the same as that for 4 large stars.
- (a) How many small stars can be made with the same length of wire used to make 20 large stars?
- (b) What is the length of wire he needs to make the remaining stars?

Answer: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [4]

16. There are a total of 300 people at a party. The ratio of the number of men to the number of adults is 3 : 5. The ratio of the number of boys to the number of children is 1 : 2. The total number of males is 166.

(a) How many adults are there at the party?

(b) How many girls are there at the party?

Answer: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

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17. There were 27 pieces of \$5 notes and \$10 notes altogether in the piggy bank. Lukas used 75% of the \$5 notes and put in 12 more pieces of \$10 notes. As a result, the number of \$5 notes was 40% the number of \$10 notes.

(a) What was the total value of the \$5 notes at first?

(b) What was the total amount of money Lukas had in the piggy bank in the end?

Answer: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

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End of Paper



# ANSWER KEY

**YEAR** : 2018  
**LEVEL** : PRIMARY 6  
**SCHOOL** : TEMASEK PRIMARY  
**SUBJECT** : MATHEMATICS  
**TERM** : PRELIMINARY EXAMINATION

## Paper 1

Q1	3	Q4	3	Q7	1	Q10	2	Q13	4
Q2	3	Q5	2	Q8	1	Q11	1	Q14	2
Q3	4	Q6	2	Q9	2	Q12	4	Q15	1

Q16 53

Q17 0.754

Q18 12

Q19 160

Q20 A

Q21 18

Q22 48 cm<sup>2</sup>

Q23 (a) Front view



Q24 \$2.40

Q25 139°

Q26 \$140

Q27 11:24 am



Q28 \$360

Q29  $\frac{3}{16}$

Q30 170

Paper 2

Q1 7 dress  $\rightarrow 15m - 2y \text{ cm} = 30 \text{ cm}$   
 $\rightarrow (1500 - 2y - 30) \text{ cm}$   
 $\rightarrow (1470 - 2y) \text{ cm}$

Length of cloth per dress  $\Rightarrow \frac{(1470 - 2y)}{7} \text{ cm}$

Q2 Vol. of 1 cube  $\rightarrow (4 \times 4 \times 4) \text{ cm}^3 = 64 \text{ cm}^3$   
Vol. of 1 cuboid  $\rightarrow 64 \text{ cm}^3 \times 8 \Rightarrow \underline{512 \text{ cm}^3}$

Q3 No. of children  $\rightarrow 45 + 15 + 15 \Rightarrow \underline{75}$

Q4 Let  $x$  be the number of girls  
 $11x + 5 = 8x + 32$   
 $3x = 27$   
 $x = 27 \div 3 = 9 \text{ girls}$   
No. of sweets  $\rightarrow 9 \times 8 + 32 \Rightarrow \underline{104 \text{ sweets}}$

Q5 Jamie  $\rightarrow 1 \text{ day} \rightarrow \frac{1}{6} \text{ house}$   
Sister  $\rightarrow 1 \text{ day} \rightarrow \frac{1}{10} \text{ house}$   
Together  $\rightarrow 1 \text{ day} \rightarrow \frac{1}{6} + \frac{1}{10} = \frac{4}{15} \text{ house}$

Fraction of house painted in 3 days  $\rightarrow \frac{4}{15} \times 3 \Rightarrow \frac{4}{5}$

Q6 (a) 13 notebooks

(b) \$204

Q7  $\frac{3}{5} \times \frac{2}{3} = \frac{2}{5}$

$\frac{4}{15}$  journey = 200 m

$\frac{5}{15}$  journey = 200 m  $\times \frac{5}{4} = 250$  m

Speed of running =  $(250 \div 3)$  m/min  $\Rightarrow 83\frac{1}{3}$  m/min

- Q8 (a) Height of mango tree in 2011  $\rightarrow 35$  cm  
 2 times the height  $\rightarrow 2 \times 35$  cm = 70 cm  
 $\Rightarrow$  In year 2013

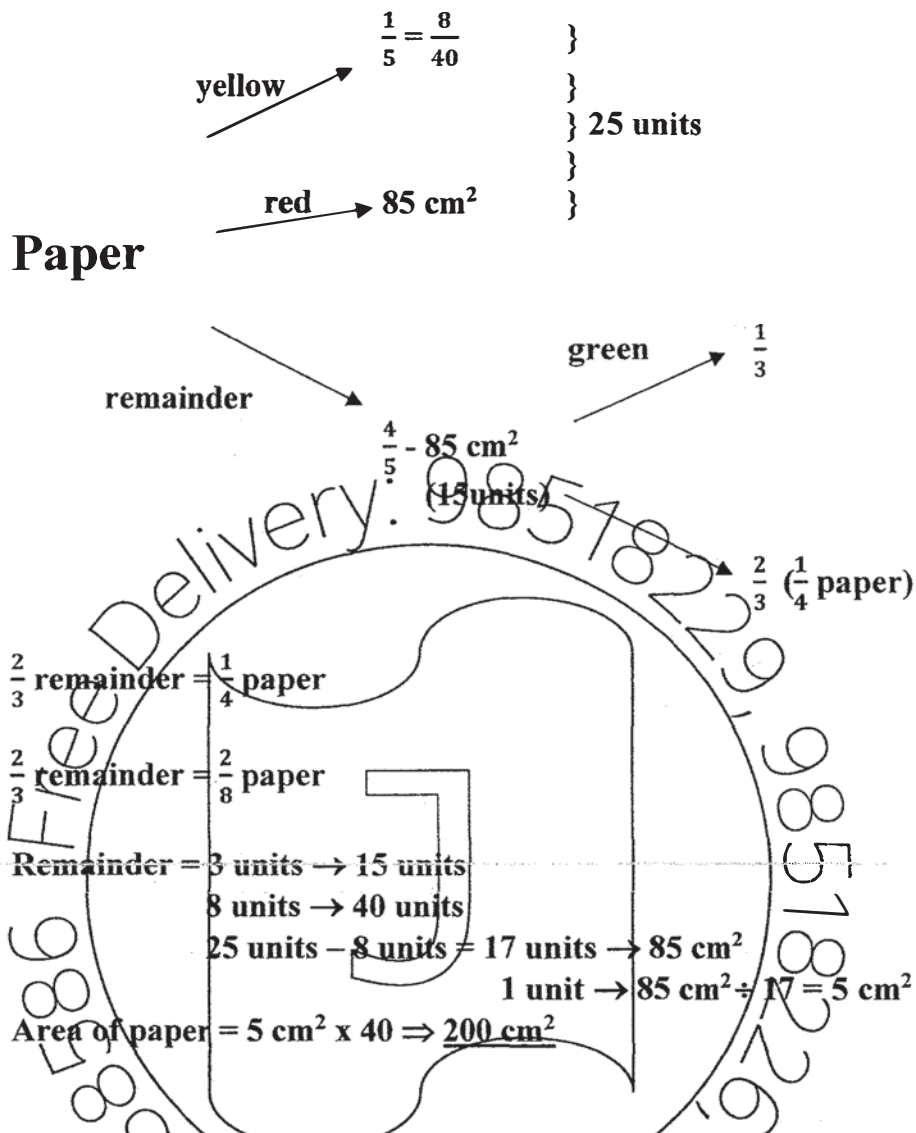
- (b) Total height  $\rightarrow (50 + 70 + 95 + 130)$  cm = 345 cm  
 Avg. height  $\rightarrow 345$  cm  $\div 4 \Rightarrow 86.25$  cm

- Q9 (a) No. of buns sold in terms of y  $\rightarrow 2y \times 5 + y + 50 + 3y - 15 = 14y + 35$   
 No. of buns sold  $\rightarrow 28 \times 14 + 35 \Rightarrow 427$  buns sold

- (b) Amt of money 1 bun cost  $\rightarrow \$1.50 \times \frac{60}{100} = \$0.90$   
 Amt of money bakery collected  $\rightarrow \$0.90 \times 427 \Rightarrow \$384.30$

- Q10 Water  $\rightarrow (35 \times 90)$  cm<sup>3</sup> = 3150 cm<sup>3</sup>  
 Units of water in X  $\rightarrow 90$  cm<sup>2</sup>  $\times 4$  units = 360 units  
 Units of water in Y  $\rightarrow 60$  cm<sup>2</sup>  $\times 1$  unit = 60 units  
 (360 + 60) units = 3150 cm<sup>3</sup>  
 420 units = 3150 cm<sup>3</sup>  
 4 units = 30 cm  
 The new height in X is 30 cm

Q11



- Q12 (a)  $\angle h \rightarrow 180^\circ - 90^\circ - 80^\circ = 10^\circ$   
 $\angle BDC \rightarrow (180^\circ - 10^\circ) \div 2 \Rightarrow 85^\circ$
- (b)  $\angle BDC = \angle FBD$  (alternate angles in parallel lines)  
 $\angle FBD = 85^\circ$   
 $\angle BFE = 180^\circ - 85^\circ \Rightarrow 95^\circ$

- Q13 (a) Total paid =  $\$(2.50 + 5 + 4) \Rightarrow \underline{\$11.50}$

- (b) Fare for travelling  $\rightarrow \$18 - \$2.00 - \$2.50 = \$13.50$   
 Amt after first 10km  $\rightarrow \$13.50 - \$5 = \$8.50$   
 Distance travelled  $\rightarrow 10 \text{ km} + \frac{8.50}{0.10} \times 150 \text{ m}$   
 $= 10 \text{ km} + 12750 \text{ m} (\approx 12.75 \text{ km}) \Rightarrow \underline{22.75 \text{ km}}$

**Q14** Area of rectangle  $\rightarrow (28 \times 14) \text{ cm}^2 = 392 \text{ cm}^2$

Area of quadrant  $\rightarrow (28 \times 28 \times \frac{22}{7}) \text{ cm}^2 \div 4 = 616 \text{ cm}^2$

Area of A, B and small quadrant  $\rightarrow (616 - 392) \text{ cm}^2 \div 4 = 224 \text{ cm}^2$

Area of small quadrant  $\rightarrow (14 \times 14 \times \frac{22}{7}) \text{ cm}^2 \div 4 = 154 \text{ cm}^2$

Area of A and B  $\rightarrow (224 - 154) \text{ cm}^2 = 70 \text{ cm}^2$

Area of H and B  $\rightarrow (616 - 154) \text{ cm}^2 = 462 \text{ cm}^2$

Difference in two shaded parts  $= (462 - 392) \text{ cm}^2 \Rightarrow \underline{70 \text{ cm}^2}$

**Q15 (a)** 20 large + 14 small  $\rightarrow 12.48 \text{ m}$

39 small  $\rightarrow 1.48 \text{ m}$

14 small  $\rightarrow 12.48 \text{ m} \times \frac{14}{39} = 4.48 \text{ m}$

Length of wire for 20 large stars  $(12.48 - 4.48) \text{ m} = 8 \text{ m}$

1 small star  $\rightarrow 12.48 \text{ m} \div 39 = 0.32 \text{ m}$

No. of small stars  $\rightarrow (8 \div 0.32) \text{ m} \Rightarrow \underline{25 \text{ small stars}}$

**(b)** No. of large and small stars  $\rightarrow 15 \text{ large} + 6 \text{ small}$

Small stars  $\rightarrow 0.32 \text{ m} \times 6 = 1.92 \text{ m}$

15 large stars  $\rightarrow 8 \text{ m} \times \frac{15}{20} = 6 \text{ m}$

Wire needed  $\rightarrow (6 + 1.92) \text{ m} \Rightarrow \underline{7.92 \text{ m}}$

Q16 (a) 5 units + 2 parts  $\rightarrow$  300  
 (3 units + 1 part = 166)  $\times$  2  
 6 units + 2 parts = 332  
 1 unit =  $332 - 300 = 32$   
 No. of adults  $\rightarrow 32 \times 5 \Rightarrow \underline{160}$

(b) 3 units  $\rightarrow 32 \times 3 = 96$   
 No. of girls  $\rightarrow 166 - 96 \Rightarrow \underline{70}$

Q17 (a) 26 units  $\rightarrow$  39  
 16 units  $\rightarrow 39 \times \frac{16}{26} = 24$   
 Total value of \$5 notes  $\rightarrow 24 \times \$5 \Rightarrow \underline{\$120}$

(b) 4 units  $\rightarrow 39 \times \frac{4}{26} = 6$

10 units  $\rightarrow 39 \times \frac{10}{26} = 15$

Total value in the end  $\Rightarrow 6 \times \$5 + 15 \times \$10 \Rightarrow \underline{\$180}$

End

