

Learning Objectives:

- Understand what BIDMAS is and how to use it
- Understand how to substitute numbers and use BIDMAS to evaluate

BRACKETS

Indices / Floaty numbas

DIVISION

MULTIPLICATION

ADDITION

SUBTRACTION

$$2^2(3+4)$$

$$3^2 \quad 4^3 \quad 10^{-1}$$

eg $5 - 6 \times (-2)$

$$\downarrow$$
$$= 5 + 12$$
$$= \underline{\underline{17}}$$

eg $-21 \div (5 - (-2))$

$$= -21 \div (5 - -2)$$
$$= -21 \div (5 + 2)$$
$$= -21 \div 7$$
$$= \underline{\underline{-3}}$$

eg $3 \quad 2 \times 10^2 \div 5$

$$\downarrow \quad \downarrow$$

Evaluate

B
I
D
M
A
S

B
I
D
M
A
S

$$\begin{array}{r} 3 \div 7 \\ -21 \\ \hline 7 \div 7 \\ 1 \end{array}$$

-3

B
I

$$= 2 \times \frac{100}{5}$$

$$\downarrow$$

$$= 2 \times 20$$

$$= \underline{\underline{40}}$$

D
M
A
S

$$10^2 = 10 \times 10$$

$$5 \overline{) 100} \begin{array}{r} 20 \\ \underline{100} \end{array}$$

Substitution

Mum
Luv u
xxx

$$3a = 3 \times a$$

$$ab = a \times b$$

$$3abc = 3 \times a \times b \times c$$

eg. Evaluate ab if $a = 2$ $b = -3$

$$ab = a \times b$$

$$= +2 \times -3$$

$$= \underline{\underline{-6}}$$

eg. $a - 3b$ $a = -2$ $b = -4$

$$a - 3b = a - 3 \times b$$

$$\downarrow$$

$$= -2 - 3 \times -4$$

$$\downarrow$$

$$= -2 + 12$$

$$= \underline{\underline{10}}$$

B
-
D
M
A
S

eg $a^2 - b^3$ $a = -2, b = -3$

$$a^2 - b^3 = a \times a - b \times b \times b$$

$a^2 = a \times a$
 $b^3 = b \times b \times b$

$$= -2 \times -2 - (-3) \times (-3) \times (-3)$$

$$= +4 - \underline{(-3) \times (-3)} \times \underline{(-3)}$$

$$= +4 \downarrow - \underline{+9 \times (-3)}$$

$$= +4 - -27$$

$$= +4 + 27$$

$$= \underline{\underline{31}}$$