

Which graph?

Tuesday, 26 February 2019 5:57 PM

- ★ By the end of the lesson I would hope that you have an understanding and be able to apply to questions the following concepts:

- Know which graph to use for which data

RECAP:

This is the end of this section of work!

We now have an arsenal of graphs at our disposal to help represent and interpret data which we might be given

The following table is a nice way to know which graph to use.

The table has been taken from the *Cambridge Further Mathematics Units 3 and 4* textbook.

Type of variables		Graph
Response variable	Explanatory variable	
Categorical	Categorical	Segmented bar chart, side-by-side (parallel) bar chart
Numerical	Categorical	Parallel box plots, parallel dot plots
Numerical	Categorical (two categories only)	Back-to-back stem plot, parallel dot or box plots
Numerical	Numerical	Scatterplot

For those students following the Australian Further Mathematics course, I would strongly suggest you copying this into your summary books. There are always questions in exams relating to the content of the above table!



VCAA Exam Question on this concept 2018 Paper 1

Question 6

Data was collected to investigate the association between the following two variables:

- age (29 and under, 30–59, 60 and over)
- uses public transport (yes, no)

Which one of the following is appropriate to use in the statistical analysis of this association?

- ~~A. a scatterplot~~
- ~~B. parallel box plots~~
- ~~C. a least squares line~~
- D. a segmented bar chart**
- ~~E. the correlation coefficient r~~



VCAA Exam Question on this concept
2016 Paper 1

Question 8

Parallel boxplots would be an appropriate graphical tool to investigate the association between the monthly median rainfall, in millimetres, and the

- ~~A. monthly median wind speed, in kilometres per hour.~~
- ~~B. monthly median temperature, in degrees Celsius.~~
- C. month of the year (January, February, March, etc.).**
- ~~D. monthly sunshine time, in hours.~~
- ~~E. annual rainfall, in millimetres.~~

num

cat