

Mean

Find the mean of the following set of numbers: 3, 3, 5, 6, 6, 4, 3, 7, 8, 9
Add the numbers and divide by the number of numbers.

Mode

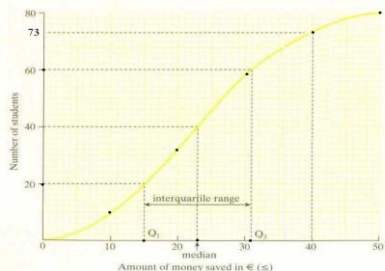
Find the mode of the following set of numbers: 3, 3, 5, 6, 6, 4, 3, 7, 8, 9
It is the value that occurs most often.

Median

Find the median of the following set of numbers: 3, 3, 5, 6, 6, 4, 3, 7, 8, 9
It is the middle value of a set of numbers if they are ordered from lowest to highest.

Median and Interquartile Range

Find the median and interquartile range of the curve below.



To find the **median**, we go to the midway point of y axis draw a line across to hit our curve and bring this vertically down to read the value of the x axis.

The **inter-quartile** range = $Q_3 - Q_1$

Q_1 is found by going a quarter of the way up the y axis, drawing a line across to hit our curve and bring this vertically down to read the value of the x axis.

Q_3 is found by going a three quarters of the way up the y axis, drawing a line across to hit our curve and bring this vertically down to read the value of the x axis.

Can I find a missing value x if I am given the mean of a set of numbers?

The mean of the numbers 4, 8, 6, x, 5 and 3 is 5. Find the value of x.
Add the numbers including x, divide it by the number of numbers and let it equal the mean. Solve for x.

Frequency Distribution

Mark	0	1	2	3	4	5
Students	3	7	5	6	8	1

Find the mean of the above data.

Multiply each number on the top by the number below it, add them all together and divide by all the bottom numbers added together and let this equal the mean given. Solve for x.

Grouped Frequency Distribution

Time	12-14	15-17	18-20
People	3	5	8

Find a mid interval value and then multiply each of these by the numbers underneath them. Add them all up and divide by the bottom numbers added together. Mid interval values here are 13, 16 and 19.

Statistics Q6 Paper 2

Cumulative Frequency Curve/ Ogive

Draw a cumulative frequency curve from the table below.

Amount saved	<10	<20	<30	<40	<50
Students	10	32	58	74	80

The top of the table goes on the bottom of the graph. The curve will always rise starting at 0 and rising from left to right.

Cumulative Frequency Table

Complete the table below.

Amount saved	0-10	10-20	20-30	30-40	40-50
Students	10	22	26	16	6

Amount saved	<10	<20	<30	<40	<50
Students					

A cumulative frequency table differs from a normal table in that we have a running total of the values as the intervals increase.

Histograms

Mins	5-15	15-25	25-45
People	10	50	80

Draw the above in a histogram.

The top of the table goes on the bottom of the histogram.

When the class intervals are equal the histogram is just like a bar chart. If the class intervals are unequal in measure the widths of the columns will change and the height is found by dividing by the base unit width. A base unit of 1 is given to the smallest gap.