

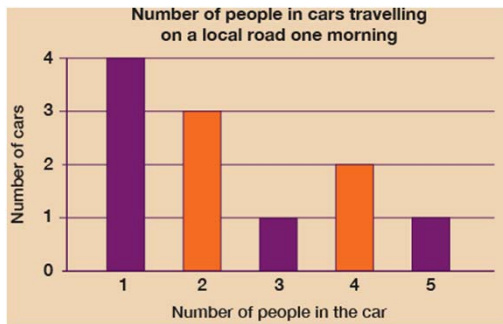
Maths Knowledge Organiser

Year 8 Statistics



Bar Charts

A bar chart have even scales, bars and gaps. The height of each bar is its total.



The modal value from a bar chart is the highest bar – the modal value is 1, 1 person per car.

Median

Is the middle value of a set of data
When that data is in order, smallest to biggest

Mean

We add all the values and divide by how many values there are

Mean from a table

Score	Frequency
6	X 2
7	X 3
8	X 7
9	X 7
10	X 1
	<u>20</u> <u>162</u>

Divide total by total frequency

$$\frac{162}{20} = 8.1$$

Stamp Price	Frequency
20-26	X 24
27-33	X 39
34-40	X 50
41-47	X 37
	<u>150</u> <u>1628</u>

Calculate the same as above but use midpoints

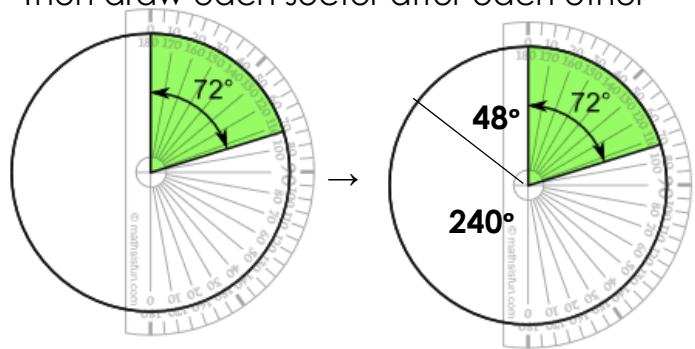
$$\frac{5200}{150} = 34.6$$

Pie Charts

Multiply each frequency by the answer to $\rightarrow 360 \div \text{Total}$ $360 \div (6+20+4)$
 $360 \div 30 = 12$

Favourite Chocolate	Frequency		Angle (to draw)
Mars	6	6×12	72
Twix	20	20×12	240
Snickers	4	4×12	48

Then draw each sector after each other



Tally charts

Tally charts use groups of 5 to show how much is in each category.
Total (Frequency) is how many tally there are.

Title: How Do We Get to School?		
Categories	Tallies	Total
Walk		7
Bike		3
Car		4
Bus		12

Mode

Is the most common value
Date can have more than one mode
Data can have no mode.
Mode is also referred to as the modal value.

Range

Is the spread of all of the data
Calculated by subtracting the smallest value from the biggest