Help sheet for finding averages

Mean

The mean is the most popular kind of average. To find the mean we must add up all the numbers we're finding the average of, and then divide by how many numbers there are in that list.

e.g - 6, 4, 3, 2, 10

1 2 3 4 5

$6+4+3+2+10 = 25$ Mean = 5

$25 \div 5 = 5$

Median

The median is often referred to as "the middle", which is precisely what it is. To find the median of a list of numbers, we put the numbers in order from smallest to largest and find the middle value/middle two values. If there is a middle value, then that is the median; if there are two middle values, then the median is the halfway point between the two.

e.g - 4, 7, 22, 9, 6,

1) Put the numbers in order -   4, 6, 7, 9, 22

2) Which number is in the middle?

Median = 7

Mode

The mode is the most common value. To find it, look for which value appears most often. There might be two values which are tied for the most appearances, in which case we say the data is **bimodal**, or alternatively there might no repeats at all, in which case there is simply no mode.

E.g - 3, 6, 3, 24, 2, 3, 3, 6, 24

Which of these numbers appears the most times?

Mode = 3

Range

The range is not another average – it is a measure of spread. This means the range is a way of telling us how spread out the data is.
To calculate it, we subtract the smallest value from the biggest value.

{Biggest value} - {Smallest Value} = Range

E.g - 60, 32, 29, 54, 100

1) Find the largest and smallest amounts

2) 100 - 29
= 71

Range = 71