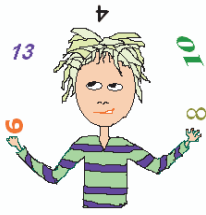


Which Average?



In Statistics there are three different types of averages. They are called Mean, Mode and Median. Each type of average is useful in certain circumstances. As a Data Detective, it is important to know which one to use when, and how to find one.

The Mean

To find this average, you count up all the values to get a total then divide this total by number of values.

The Mode

This is the value that occurs most often in a data set. There may be more than one modal value.

The Median

This is the middle value when the data has been lined up in numerical order (smallest to largest).

NOTE: If there is an odd number of data the median is the middle value.
If there is an even number of data the median lies between the two middle values.

What is the average number of drinks a student has?

Number of cups/glasses of each type of drink students had yesterday	Water	Fruit juice	Fizzy Drink	Diet fizzy drink	Energy Drinks	Whole Milk	Flavoured Milk	Smoothie	Tea/ Coffee	Other drinks	Total
Name:											
Student 1	3	0	0	0	0	4	0	0	1	0	8
Student 2	0	0	3	0	0	0	0	0	0	2	5
Student 3	0	0	0	2	1	0	0	0	0	0	3
Student 4	1	2	0	0	0	1	0	1	0	1	6
Student 5	6	3	2	1	3	3	6	1	4	6	35
Student 6	1	0	2	0	0	0	0	0	0	0	3
Student 7	5	1	0	0	0	0	0	0	1	1	8
Student 8	3	0	0	1	0	0	0	0	0	1	5
Student 9	0	3	2	0	0	3	0	0	0	0	8

To find the mean, mode and median for this data set:

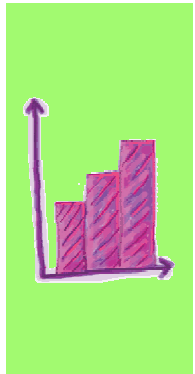
Mean $8+5+3+6+35+3+8+5+8 = 81$. $81/9 = 9$. The Mean is 9

Mode 8 (the most frequent total)

Median 3, 3, 5, 5, 6, 8, 8, 8, 35 The middle value is 6. Therefore the median is 6

Which average is the best to use? –Discuss with your group.

In a group of 4 to 6 people, fill in the table. Can you find the mean, mode and median of your group's data? Which average is best for your group's data? Give a reason



Number of cups/glasses of each type of drink students had yesterday	Water	Fruit juice	Fizzy Drink	Diet fizzy drink	Energy Drinks	Whole Milk	Flavoured Milk	Smoothie	Tea/ Coffee	Other drinks	Total
Name											