

## Calculating the median

Median is the **middle value** of a set of data. It is shown at the mid-point when a set of numbers is written out in order.

Working with the median is **Level 2** in the Basic Skills curriculum, but you may find it interesting to know what it is.

### Example 1

Find the median of these numbers.

6, 4, 6, 5, 3

First put the numbers in order. This makes it easier to find the median.

3, 4, 5, 6, 6,

You can now see that 5 is the middle number. It is halfway along the list.

**So the median value of this set of data is 5.**

### Example 2

Find the median value of these numbers.

9, 3, 5, 7, 10, 5

First put the numbers in order. This makes it easier to find the median.

3, 5, **5**, **7**, 9, 10

You can now see that 5 and 7 are in the middle of the list. The median is the exact middle. So here we need a number that's halfway between 5 and 7. That number is 6.

**So the median value of this set of numbers is 6.**

Notice that you can have a median value that doesn't appear in the list of data. In the example above, 6 is the median value, but 6 isn't in the list of numbers given in the question.

### Why use the median?

The factsheet 'Understanding distorted averages' explains that sometimes the mean value of a set of data is **distorted**. The median is not so easily distorted as the mean value. So sometimes it's a better type of average to use.

### Example

Look at the wages example in the factsheet 'Understanding distorted averages'. The wages, in order, are:

£8,000, £8,000, £8,000, £12,000, £175,000

The **mean** is £42,200. But this is misleading because it's much higher than most of the wages.

The **median** value is in the middle of the list. The median wage is £8,000, which is a good indication of the general level of pay. So in this example you could argue that the median is more useful than the mean for giving a less distorted impression of the wages at the company.