Data Calculations: Finding the Median (Middle Score)

Looking at any data display graph can tell you a lot about the data, but there are some calculations you can do that will give you more information about the data, that you cannot get by just looking at a graph. Finding the **mean** is one type of 'average', but so is the **median**.
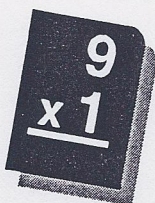
> The **median** is the middle score or number, once the scores are in order from smallest to biggest.

Example:
The results of a class test are listed below.

> 6, 8, 10, 10, 9, 7, 5

What is the **median** or 'middle' score?

To find the **median**, scores must be placed in order from smallest to biggest.
In this example, the scores in order would be ...

> 5, 6, 7, 8, 9, 10, 10

Then, start counting one off each end, keep going until you have one score left in the middle
What number is in the middle of this list, as this is the **median**?   Answer: The number 8 is the **median**.

Task 18

Find the **median** (middle score) for each list of scores below. (Remember scores must be in order)

1.   4, 8, 9

2.   4, 6, 6, 7, 9

3.   4, 9, 12, 13, 16, 19, 21

4.   1, 3, 4, 6, 8, 9, 9

5.   6, 8, 9, 15, 17, 18, 21

6.   2, 3, 3, 4, 5, 6, 7, 8, 9, 9, 11

7.   6, 4, 9

8.   7, 6, 1, 3, 8

9.   5, 2, 4, 7, 9, 4, 5

In the questions above, there is an odd number of scores and one number is left in the middle. When you have an even number of scores, there will be two scores left in the middle.

> The **median** or middle score, is taken as halfway between the two middle scores.

Example: 3, 6, 8, 9   6 & 8 are in the middle,   Halfway between 6 & 8 is 7. The **median** is 7.

Find the **median** (middle score) for each list of scores below. (Remember scores must be in order)

10.   1, 5, 7, 8

11.   4, 6, 10, 12

12.   1, 3, 6, 8, 12, 16

13.   6, 8, 9, 13, 14, 17

14.   8, 10, 15, 17, 19, 22

15.   3, 6, 6, 7, 8, 10, 10, 12

16.   6, 2, 7, 4

17.   3, 10, 8, 7, 10, 12

18.   6, 15, 6, 8, 13, 7, 12, 17

Miri likes throwing her frisbee. She threw it 7 times and measured the distance to the nearest metre. These were her results.

> 34, 25, 42, 39, 45, 29, 31

19.   Find the **median** distance (m) the frisbee was thrown.

During the holidays these girls set up a lemonade stall. They recorded the number of glasses of lemonade sold each day. These results are listed below.

> 5, 6, 8, 4, 10, 6, 9, 10, 8, 2, 3, 8, 9, 5

20.   Find the **median** number of glasses of lemonade sold.