

## Mean, Median and Mode

**1** Fill in the blank.

The median is the middle of an ordered data set.

**2** Fill in the blank.

The mean is another term for the average value of a data set.

**3** Fill in the blanks.

To calculate the mean, add all the numbers in the data set and then divide the total by the number of members in the data set.

**4** True or False?

If no values are repeated, then a data set doesn't have a mode.

True       False

**5** Calculate the mean of this data set.

{ 8, 3, 5, 12 }

add:  $8 + 3 + 5 + 12 = 28$

divide:  $28 \div 4 = 7$

**6** Find the median of this data set.

{ 0, 3, 4, 8, 10, 15, 20 }

8 is the median because the set is in order and it's the middle member.

**7** Find the Mean, Median and Mode of this data set:

{ 7, 2, 5, 8, 14, 8, 10, 2 }

Mean:

$$\begin{array}{r} 3 \\ 14 \\ 10 \\ 8 \\ 8 \\ 7 \\ 5 \\ 2 \\ 2 \\ + 2 \\ \hline 56 \end{array}$$

$$\begin{array}{r} 7 \\ 8 \overline{)56} \\ \underline{-56} \\ 0 \end{array}$$

Since the set has an even number of members, the Median is the Mean of the middle two:

Median: { 2, 2, 5, 7, 8, 8, 10, 14 }       $\frac{7+8}{2} = 7.5$

Mode: { 2, 2, 5, 7, 8, 8, 10, 14 }

Mean 7      Median 7.5      Mode 2 and 8

**8** This table records how many miles Rob walked each weekday. Find the Mean, Median and Mode of this data set.

Day	Miles
Mon.	2.6
Tue.	0.0
Wed.	0.8
Thu.	2.1
Fri.	1.5

Mean:

$$\begin{array}{r} 2 \\ 2.6 \\ 2.1 \\ 1.5 \\ 0.8 \\ + 0.0 \\ \hline 7.0 \end{array}$$

$$\begin{array}{r} 1.4 \\ 5 \overline{)7.0} \\ \underline{-5} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

Median:  
in order 0.0, 0.8, 1.5, 2.1, 2.6

Mode: None of the values are repeated in this set, so there is no mode.

Mean 1.4      Median 1.5      Mode none