

## ***Mean, Median, Mode and Range***

1. To calculate the mean, add the numbers and divide by how many numbers there are. Calculate the mean for the following sets of data.

(a) 2, 3, 5, 6, 7, 7, 8, 9

(b) 14, 20, 21, 23, 24, 24, 26, 27, 28, 32

(c) 8, 12, 4, 6, 11, 15, 16

(d) 2.5, 3.6, 4.1, 4.5, 5.2, 6.3, 6.5, 7.2

2. To calculate the median, arrange the numbers in order from lowest to highest and find the middle.

(a) 11, 13, 15, 16, 18, 19, 21

(b) 41, 47, 47, 48, 50

(c) 20, 28, 32, 41, 18, 27, 33, 45, 33

(d) 21.5, 32.1, 14.7, 20.6, 35.6, 45.2, 33.8

3. Sometimes the median falls between two numbers! Calculate the median.

(a) 20, 21, 22, 24, 26, 27

(b) 31, 33, 33, 37, 38, 41, 43, 44

(c) 24, 30, 21, 31, 25, 35, 29, 26

(d) 28.2, 31.5, 42.3, 37.4, 35.1, 28.4

4. The mode is the most common number. Write down the mode.

(a) 20, 15, 17, 19, 21, 20

(b) 102, 105, 99, 87, 96, 102, 115, 94

(c) 3.1, 4.7, 4.3, 3.9, 4.2, 3.9, 5.3

(d) 21, 40, 35, 18, 29, 37, 33

5. The range measures how spread out a set of values is. To calculate range, we subtract the lowest value from the highest. Calculate the range.

(a) 24, 15, 19, 19, 27, 30

(b) 10, 10, 9, 8, 9, 10, 11, 9

(c) 3.7, 4.01, 4.05, 3.94, 4.12, 3.119

(d) 21, 47, 34, 18.2, 29.5, 37, 33.02

6. For each set of data, calculate the mean, median, mode and range.
- (a) 2, 4, 5, 7, 7, 8, 9, 11                      (b) 12, 13, 15, 16, 17, 18, 18, 20, 22
- (c) 85, 79, 65, 72, 79, 72, 81, 67            (d) 2.5, 3.12, 4.38, 2.03, 3.09, 2.18, 3.91

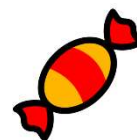
7. Mr Maths takes a group of Pupils to a competition. They calculate the mean, median and mode of the group as follows.

Mean = 19.6 years      Median = 12 years      Mode = 12 years

Which do you think is not a good representation of the group and why?

8. A sweet company claim that the mean number of sweets in a bag was 28. Erin buys five bags for a party and counts the number in each bag (so sad!).

Bag 1 = 29 sweets      Bag 2 = 24 sweets      Bag 3 = 28 sweets  
 Bag 4 = 30 sweets      Bag 5 = 26 sweets



- (a) Was the sweets company correct? Explain your answer.  
 (b) The company changes their claim to the “average” number of sweets. Is their new statement correct? Explain your answer.

9. The weights of five teenagers are shown below.

60kg   50kg   46kg   62kg   62kg

- (a) Calculate the range of the weights of the five pupils.  
 (b) Calculate the mean, median and modal weights.  
 (c) Which one of these is not an accurate representation? Explain.



10. Derek is taking two packages to the post office. One of them weighs 1400g. The mean weight of the two packages was 1700g. What was the weight of the second package?

11. A team of four on a quiz show have an average age of 28 years old.  
The team members have the following ages:

Evan – 24      Anna – 31      April – 27      Dean - ???

What age is Dean?

12. A box of wall pins is claimed to contain a mean of 150 pins. The school buys six boxes.  
The first five boxes contain the following number of pins:

148      154      142      145      151



How many pins must be in the last box for the claim to be correct?

13. At a bowling alley the mean score of a team of four was 137.  
The mean score of the first three team members was 128.  
What was the score of the fourth person?



14. Shop A and Shop B sell strawberries. Gregair buys five punnets from each shop.  
Shop A has a mean number of 22 strawberries per punnet.  
Shop B has a mean number of 25 per punnet.  
What is the mean number of strawberries in all ten punnets?



15. Calculate the mean, median, mode and range of the following sets of data.

(a)  $2\frac{1}{2}$  ,  $3\frac{1}{4}$  ,  $4\frac{1}{3}$

(b)  $2\frac{1}{3}$  ,  $3\frac{2}{5}$  ,  $4\frac{1}{4}$  ,  $5\frac{1}{2}$