Mean

- THE SUM OF A SET OF NUMBERS DIVIDED BY THE NUMBER OF NUMBERS IN THE SET
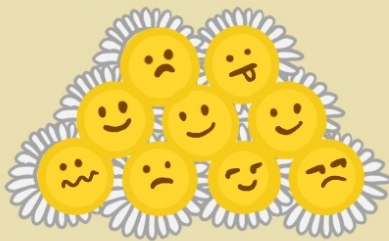
Median

- THE MIDDLE NUMBER WHEN DATA ARE ARRANGED IN NUMERICAL ORDER

Mode

- THE NUMBER THAT OCCURS MOST OFTEN IN A SET OF NUMBERS

Range

- THE DIFFERENCE BETWEEN THE GREATEST AND LEAST NUMBER IN A SET OF DATA.

1. Chloe made a list of her homework marks.

$$4 \quad \underline{5} \quad \underline{5} \quad \underline{5} \quad 4 \quad 3 \quad 2 \quad 1 \quad 4 \quad \underline{5}$$

(a) Write down the mode of her homework marks.

....................**5**...................

(1)

(b) Work out her mean homework mark.

$$\frac{38}{10}$$

..................**3.8**...............

(2)

(Total 3 marks)

2. Peter rolled a 6-sided dice ten times.
Here are his scores.

$$3 \quad 2 \quad 4 \quad 6 \quad 3 \quad 3 \quad 4 \quad 2 \quad 5 \quad 4$$

(a) Work out the median of his scores.

~~2,2,~~ ~~3,3,~~3, 4, ~~4,4~~, ~~5,6~~

..........**3.5**..............

(2)

(b) Work out the mean of his scores.

$$\frac{36}{10}$$

..................**3.6**..............

(2)

(c) Work out the range of his scores.

....................**4**....................

(1)

(Total 5 marks)

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3. Here are the weights, in kg, of 8 people.

     63   65   65   70   72   86   90   97

(a) Write down the mode of the 8 weights.

....**65**............ kg

(1)

(b) Work out the range of the weights.

....**34**............ kg

(2)
(Total 3 marks)

4. Here are the ages of 6 people.

    5̶   1̶8̶   1̶0̶   1̶4̶   2̶2̶   1̶2̶

(a) Work out the range of these ages.

    5   **10**   **12**   **14**   **18** **22**

........**17**............

(1)

(b) Find the median age.

........**13**............

(2)

(c) Work out the mean age.

$$\frac{81}{6}$$

........**13.5**............

(2)
(Total 5 marks)

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5. Here are the shoe sizes of 6 students.

~~2~~   10   ~~7~~   ~~6~~   10   9

(a) Work out the range of these shoe sizes.

2   6   7   9   10   10

.... 8 ....

(1)

(b) Find the median shoe sizes.

.... 8 ....

(2)

(c) Work out the mean shoe sizes.

$$\frac{44}{6}$$

.... 7.3̇ ....

(2)

(Total 5 marks)

6. Jalin wrote down the ages, in years, of seven of his relatives.

45,   ~~38~~,   43,   43,   ~~39~~,   ~~40~~,   ~~39~~

(a) Find the median age.

38 , 39,39, 40,43,43,45   40

....

(1)

(b) Work out the range of the ages.

.... 7 ....

(1)

(c) Work out the mean age.

$$\frac{287}{7}$$

.... 41 ....

(2)

(Total 4 marks)

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7. Mr Smith kept a record of the number of absences for each student in his class for one term.

Here are his results.

0   0   0   8   4   5   5   3   2   1

(a)   Write down the mode.

............0............

(1)

(b)   Work out the mean.

$$\frac{28}{10}$$

............2.8............

(2)

(Total 3 marks)

8. Here are 10 numbers.

3   2̶   5   4   2̶   4   6   2̶   1̶   2̶

(a)   Find the mode of these numbers.

............2............

(1)

(b) Find the median of these numbers.

1 , 2, 2 ,2, 2, 3, 4, 4, 5, 6

............2.5............

(2)

(c)   Find the range of these numbers.

............5............

(2)

(Total 5 mark)

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9. Here are the test marks of 6 girls and 4 boys.

Girls: 5   3   ⟨10⟩   ⟨2⟩   7   3

Boys: 2   5   9   3

(a)   Write down the mode of the 10 marks.

.............3...........................

(1)

(b)   Work out the median mark of the **boys**.

2,3,5,9   ....4...........

(2)

(c)   Work out the range of the **girls'** marks.

.....8..................

(1)

(d)   Work out the mean mark of all 10 students.

$\dfrac{49}{10}$

.........4.9...........

(2)
(Total 6 marks)

10. Here are ten numbers.

7   6   8   4   5   ⟨9⟩   7   ⟨3⟩   6   7

(a)   Work out the range.

.........6.........................

(2)

(b)   Work out the mean.

$\dfrac{62}{10}$

.......6.2...................

(2)
(Total 4 marks)

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11. Here are fifteen numbers.

~~10   12   13   15   15~~

17   19   20   20   20

~~21   25   25   25   25~~

(a) Find the mode.

..........**25**..........

(1)

(b) Find the median.

..........**20**..........

(1)

(c) Work out the range.

..........**15**..........

(2)

(Total 4 marks)

12. A rugby team played 7 games.

Here is the number of points they scored in each game.

3   5   8   9   12   12   16

(a) Find the median.

..........**9**..........

(2)

The rugby team played another game.
They scored 11 points.

(b) Find the median number of points scored in these 8 games.

..........**10**..........

(3)

(Total 5 marks)

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13. Tom recorded the shoe size of five of his friends.
Here are his results.

<div align="center">8   9   3   4   7</div>

(a) Work out the median shoe size.

<div align="center">3 4 7 8 9</div>

.... 7 ....

(2)

Another friend has a shoe size of 8

(b) Work out the median shoe size of all **six** friends of Tom.

<div align="center">3 4 7 8 8 9</div>

.... 7.5 ....

(2)

(Total 4 marks)

14. The mean of eight numbers is 41
The mean of two of the numbers is 29

What is the mean of the other six numbers?

Sum of 8 numbers = 41 × 8
= 328

Sum of 2 numbers = 29 × 2
= 58

Sum of 6 numbers = 270

mean of 6 = 45

.... 45 ....

(Total 3 marks)

<div align="center">The Maths Society</div>