Mean, Median, Mode and Range - Worksheet

Skill

Group A - mode

Write down the mode of each list of numbers:

1) 3 6 7 8 8

2) 2 5 5 7 8

3) 1 1 2 4 7

4) 3 6 7 8 8 9

5) 2 5 5 7 8 9

6) 1 1 2 4 5 7

7) 2 3 6 7 8 8 9

8) 2 5 5 6 7 8 9

9) 1 1 2 4 4 5 7

10) 2 2 3 6 7 8 8 9

11) 2 5 5 6 7 7 8 9

12) 1 1 2 4 4 5 7 10

Group B - median

Find the median of each list of numbers:

1) 3 6 7 8 8

2) 2 5 5 7 8

3) 1 1 2 4 7

4) 3 6 7 8 8 9

5) 2 5 5 7 8 9

6) 1 1 2 4 5 7

7) 2 3 6 7 8 8 9

8) 2 5 5 6 7 8 9

9) 1 1 2 4 4 5 7

10) 2 2 3 6 7 8 8 9

11) 2 5 5 6 7 7 8 9

12) 1 1 2 4 4 5 7 10

Group C - mean

Work out the mean of each list of numbers.

Give your answer to 1 decimal place where needed:

1) 3 6 7 8 8

2) 2 5 5 7 8

3) 1 1 2 4 7

4) 3 6 7 8 8 9

5) 2 5 5 7 8 9

6) 1 1 2 4 5 7

7) 2 3 6 7 8 8 9

8) 2 5 5 6 7 8 9

9) 1 1 2 4 4 5 7

10) 2 2 3 6 7 8 8 9

11) 2 5 5 6 7 7 8 9

12) 1 1 2 4 4 5 7 10

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Group D - range

Work out the range of each list of numbers:

1) 3 6 7 8 8

2) 2 5 5 7 8

3) 1 1 2 4 7

4) 3 6 7 8 8 9

5) 2 5 5 7 8 9

6) 1 1 2 4 5 7

7) 2 3 6 7 8 8 9

8) 2 5 5 6 7 8 9

9) 1 1 2 4 4 5 7

10) 2 2 3 6 7 8 8 9

11) 2 5 5 6 7 7 8 9

12) 1 1 2 4 4 5 7 10

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Mean, median, mode and Range - Worksheet

Applied

1) **(a)** The heights of some children (to the nearest cm) are shown below.

113   111   123   121   119   113   117

Find the mode, median and mean.
(Give the mean to 1 dp).

(b) Find the range.

2) **(a)** The weights of 11 puppies (to the nearest g) are shown below.

418   406   372   428   320   302   325   395   365   325   327

Find the mode, median and mean.
(Give the mean to 1 dp).

(b) Find the range.

3) **(a)** The range of a set of data is 8.
The smallest value is 5.
What is the largest value?

(b) The range of a set of data is 12.
The largest value is 27.
What is the smallest value?

4) **(a)** The mean of 4 numbers is 11.
Here are 3 of the numbers
7   8   16

What is the 4th number?

(b) The mean of 6 numbers is 15.
Here are 5 of the numbers
8   10   11   21   26

What is the 6th number?

Mean, median, mode and Range - Exam Questions

1)   Here is a list of numbers   19   13   17   18   17

    (a)   Write down the mode.

       ………………

       (1)

    (b)   Work out the range.

       ………………

       (2)

    (c)   Work out the mean.

       ………………

       (2)

       (5 marks)

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2)   Here is a list of numbers   1.9 1.2 1.3 1.5 1.4 1.6 1.3

    (a)   Write down the mode.

       ………………

       (1)

    (b)   Work out the range.

       ………………

       (2)

    (c)   Work out the median.

       ………………

       (2)

    (d)   Work out the mean.

       Give your answer
       correct to 3 significant
       figures.

       ………………

       (2)

       (7 marks)

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Mean, median, mode and Range - Exam Questions

3) Seven people entered a dancing competition.

Here are the points that each of the first 6 people scored.

12   16   19   15   9   8
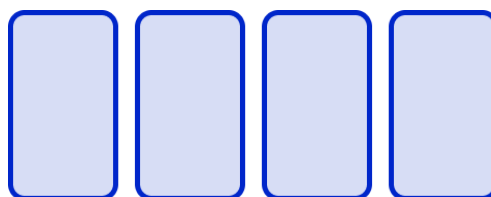
(a) Work out the range for these 6 people.

……………… **(2)**

(b) Work out the median for these 6 people.

……………… **(2)**

The mean of the 7 people is 14.

(c) Work out how many points the seventh person scored.

……………… **(2)**

(6 marks)

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4) There are four cards with some numbers on them.

The mode of the cards is 6.
The mean of the cards is 7.
The range of the cards is 8.

Find the four numbers on the cards.

….., ….., ….., ……,

(3 marks)

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Mean, median, mode and Range - Answers

	Question	Answer
	Skill Questions	
Group A	Write down the mode of each list of numbers: 1) 3 6 7 8 8 2) 2 5 5 7 8 3) 1 1 2 4 7 4) 3 6 7 8 8 9 5) 2 5 5 7 8 9 6) 1 1 2 4 5 7 7) 2 3 6 7 8 8 9 8) 2 5 5 6 7 8 9 9) 1 1 2 4 4 5 7 10) 2 2 3 6 7 8 8 9 11) 2 5 5 6 7 7 8 9 12) 1 1 2 4 4 5 7 10	1) 8 2) 5 3) 1 4) 8 5) 5 6) 1 7) 8 8) 5 9) 1 and 4 10) 2 and 8 11) 5 and 7 12) 1 and 4
Group B	Find the median of each list of numbers: 1) 3 6 7 8 8 2) 2 5 5 7 8 3) 1 1 2 4 7 4) 3 6 7 8 8 9 5) 2 5 5 7 8 9 6) 1 1 2 4 5 7 7) 2 3 6 7 8 8 9 8) 2 5 5 6 7 8 9 9) 1 1 2 4 4 5 7 10) 2 2 3 6 7 8 8 9 11) 2 5 5 6 7 7 8 9 12) 1 1 2 4 4 5 7 10	1) 7 2) 5 3) 2 4) 7.5 5) 6 6) 3 7) 7 8) 6 9) 4 10) 6.5 11) 6.5 12) 4

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Mean, median, mode and Range - Answers

Group C	Work out the mean of each list of numbers. Give your answer to 2 decimal places where needed:	
	1) 3 6 7 8 8	1) 6.4
	2) 2 5 5 7 8	2) 5.4
	3) 1 1 2 4 7	3) 3
	4) 3 6 7 8 8 9	4) 6.83 (to 2 dp)
	5) 2 5 5 7 8 9	5) 6
	6) 1 1 2 4 5 7	6) 3.33 (to 2 dp)
	7) 2 3 6 7 8 8 9	7) 6.14 (to 2 dp)
	8) 2 5 5 6 7 8 9	8) 6
	9) 1 1 2 4 4 5 7	9) 3.43 (to 2 dp)
	10) 2 2 3 6 7 8 8 9	10) 5.63 (to 2 dp)
	11) 2 5 5 6 7 7 8 9	11) 6.13 (to 2 dp)
	12) 1 1 2 4 4 5 7 10	12) 4.25
Group D	Work out the range:	
	1) 3 6 7 8 8	1) 5
	2) 2 5 5 7 8	2) 6
	3) 1 1 2 4 7	3) 6
	4) 3 6 7 8 8 9	4) 6
	5) 2 5 5 7 8 9	5) 7
	6) 1 1 2 4 5 7	6) 6
	7) 2 3 6 7 8 8 9	7) 7
	8) 2 5 5 6 7 8 9	8) 7
	9) 1 1 2 4 4 5 7	9) 6
	10) 2 2 3 6 7 8 8 9	10) 7
	11) 2 5 5 6 7 7 8 9	11) 7
	12) 1 1 2 4 4 5 7 10	12) 9

Mean, median, mode and Range - Answers

	Question	Answer
	Applied Questions	
1)	**a)** The heights of some children (to the nearest cm) are shown below. 113 111 123 121 119 113 117 Find the mode, median and mean. (Give the mean to 1 dp). **b)** Find the range.	**a)** Mode = 113 cm Median = 117 cm Mean = 116.7 cm (to 1 dp) **b)** Range = 12 cm
2)	**a)** The weights of 11 puppies (to the nearest g) are shown below. 418 406 372 428 320 302 325 395 365 325 327 Find the mode, median and mean. (Give the mean to 1 dp). **b)** Find the range.	**a)** Mode = 325 g Median = 365 g Mean = 362.1 g (to 1 dp) **b)** Range = 126 g
3)	**a)** The range of a set of data is 8. The smallest value is 5. What is the largest value? **b)** The range of a set of data is 12. The largest value is 27. What is the smallest value?	**a)** 13 **b)** 15
4)	**a)** The mean of 4 numbers is 11. Here are 3 of the numbers 7 8 16 What is the 4th number? **b)** The mean of 6 numbers is 15. Here are 5 of the numbers 8 10 11 21 26 What is the 6th number?	**a)** 13 **b)** 14

Mean, median, mode and Range - Mark Scheme

		Question		Answer	
		Question		**Answer**	
		Exam Questions			
1)	(a)	Here is a list of numbers 19 13 17 18 17 Write down the mode.	(a)	17 **(1)**	**(1)**
	(b)	Work out the range.	(b)	$19 - 13$ **(1)** $= 6$ **(1)**	**(2)**
	(c)	Work out the mean.	(c)	$(19 + 13 + 17 + 18 + 17) \div 5$ **(1)** $= 16.8$ **(1)**	**(2)**
2)	(a)	Here is a list of numbers 1.9 1.2 1.3 1.5 1.4 1.6 1.3 Write down the mode.	(a)	1.3 **(1)**	**(1)**
	(b)	Work out the range.	(b)	$1.9 - 1.2$ **(1)** $= 0.7$ **(1)**	**(2)**
	(c)	Work out the median.	(c)	1.2 1.3 1.3 1.4 1.5 1.6 1.9 **(1)** 1.4 **(1)**	**(2)**
	(d)	Work out the mean. Give your answer correct to 3 significant figures.	(d)	$(1.2 + 1.3 + 1.3 + 1.4 + 1.5 + 1.6$ **(1)** $= 1.457... = 1.46\ (to\ 3\ sf)$ **(1)**	**(2)**
2)	(a)	Seven people entered a dancing competition. Here are the points that each of the first 6 people scored. 12 16 19 15 9 8 Work out the range for these 6 people.	(a)	$19 - 8$ **(1)** $= 11$ **(1)**	**(2)**

	(b)	Work out the median for these 6 people.	(b)	8 9 12 15 16 19 $\frac{12+15}{2}$ **(1)** $= 13.5$ **(1)**	**(2)**
	(c)	The mean of the 7 people is 14. Work out how many points the seventh person scored.	(c)	$(7 \times 14) - (12 + 16 + 19 + 15 + 9$ **(1)** $= 19$ **(1)**	**(2)**
3)		There are four cards with some numbers on them. The mode of the cards is 6. The mean of the cards is 7. The range of the cards is 8. Find the four numbers on the cards.		Two cards are 6 and 6 **(1)** $7 \times 4 - (6 + 6) = 16$ The second 2 cards must total 16 **(1)** The last two cards are 4 and 12 **(1)**	**(3)**