Mean from a list

Grade 2 | Worked solutions

GCSE Statistics topic practice

1 Here are the numbers of goals a netball team scored in five matches.

12 15 9 14 10

a. Work out the mean number of goals. (2)

b. In how many of the matches did the team score more than the mean? (1)

(3 marks)

a) add the values, then divide by how many there are

12 + 15 + 9 + 14 + 10 = 60

60 ÷ 5 = 12

mean = 12 goals

b) scores that are more than 12

15 and 14

2 matches

a) 12 b) 2

2 Here are the numbers of text messages sent by six friends in one day.

14 9 22 17 11 23

a. Work out the mean number of text messages. (2)

b. A seventh friend sent 30 text messages on the same day.
Work out the mean for all seven friends. (2)

(4 marks)

a) add the values, then divide by how many there are

14 + 9 + 22 + 17 + 11 + 23 = 96

96 ÷ 6 = 16

mean = 16 text messages

b) new total

96 + 30 = 126

126 ÷ 7 = 18

a) 16 b) 18

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3 Olu records how many minutes late the buses are on two routes.

Route	Minutes late
Route 12	3 7 0 6 4
Route 40	6 2 9 3

On average, which route has the later buses?
You must show your working.

(4 marks)

Route 12 has 5 buses

$3 + 7 + 0 + 6 + 4 = 20$

$20 \div 5 = 4$

Route 40 has 4 buses

$6 + 2 + 9 + 3 = 20$

$20 \div 4 = 5$

$5 > 4$

Route 40 buses are later on average

Route 40, mean 5 minutes (Route 12 mean 4 minutes)

4 Ravi takes four spelling tests. Each test is out of 15.
His scores in the first three tests are
7 12 6
His mean score for all four tests is 9.

a. Work out Ravi's score in the fourth test. (3)

b. Ravi's sister says, "The mean is always one of the scores."
Use Ravi's scores to show that she is wrong. (1)

(4 marks)

a) total = mean × number of tests

$4 \times 9 = 36$

total of the first three tests

$7 + 12 + 6 = 25$

fourth test

$36 - 25 = 11$

b) his scores are 7, 12, 6 and 11

The mean is 9

9 is not one of his scores

a) 11 b) 9 is not one of the scores

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5 Here are the numbers of visitors to a small museum on six days.

Day	Mon	Tue	Wed	Thu	Fri	Sat
Visitors	42	38	45	40	35	160

On Saturday the museum held a free family day.

a. Work out the mean number of visitors for the six days. (2)

b. Explain why this mean is not a good average for the number of visitors on a normal day. (1)

c. Work out the mean number of visitors from Monday to Friday. (2)

(5 marks)

a) add the values, then divide by 6

42 + 38 + 45 + 40 + 35 + 160 = 360

360 ÷ 6 = 60

b)

160 is much bigger than the other values

It pulls the mean up

60 is more than each of the other 5 days

c) total for Monday to Friday

360 - 160 = 200

200 ÷ 5 = 40

a) 60 b) 160 pulls the mean up c) 40

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