Mode and range

Grade 1 | Worked solutions

GCSE Statistics topic practice

1 Here are the temperatures, in °C, at noon in Hull on each of seven days.

14 17 15 17 19 16 17

a. Write down the mode. (1)

b. Work out the range. (2)

(3 marks)

a) the value that appears most often

17 appears 3 times

mode = 17°C

b) range = highest - lowest

19 - 14 = 5

range = 5°C

a) 17°C b) 5°C

2 Here are the numbers of goals scored by a netball team in each of 9 matches.

12 15 9 15 20 11 15 18 9

a. Write down the mode. (1)

b. Work out the range. (2)

c. A second team has a range of 4 goals.
Which team scored a more consistent number of goals? Give a reason for your answer. (1)

(4 marks)

a) the number that appears most often

15 appears 3 times

b) range = highest - lowest

20 - 9 = 11

c)

4 < 11

The second team has the smaller range

so its scores are closer together

a) 15 b) 11 c) second team, smaller range

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3 The table shows the sizes of the T-shirts a shop sold in one day.

Size	Small	Medium	Large	Extra large
Number sold	6	11	9	4

a. Write down the mode. (1)

b. Tariq says, "The mode is 11."
Explain the mistake Tariq has made. (1)

c. Explain why the range of the sizes cannot be worked out. (1)

d. The shop can order more T-shirts in only one size.
Which size should it order? Give a reason for your answer. (1)

(4 marks)

a) the size with the highest frequency

Medium

b)

11 is the frequency, not the mode

The mode is the size, Medium

c)

The sizes are words, not numbers

The range needs highest - lowest

d)

Medium, because it sells the most

a) Medium b) 11 is the frequency c) sizes are words d) Medium

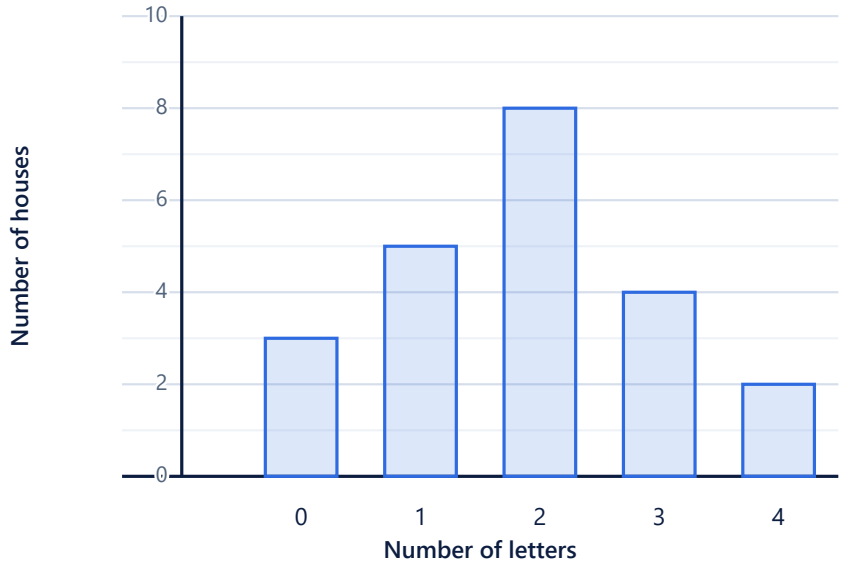
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4 Efe records the number of letters delivered to each house in his street one morning.
The bar chart shows his results.

a. Write down the mode of the number of letters. (1)

b. Work out the range of the number of letters. (2)

c. How many houses are there in the street? (1)



(4 marks)

a) the tallest bar

mode = 2 letters

b) use the numbers of letters, not the heights of the bars

highest = 4 and lowest = 0

4 − 0 = 4

c) add the heights of the bars

3 + 5 + 8 + 4 + 2 = 22

a) 2 b) 4 c) 22

5 Lena counts the customers who come into her shop in each of five hours.
Here are her results for the first four hours.

4 9 6 4

The fifth hour was the busiest hour. The range for the five hours is 8.

a. Work out the number of customers in the fifth hour. (2)

b. Write down the mode for the five hours. (1)

c. Lena counts the customers for a sixth hour. Now there are two modes.
Write down a possible number of customers in the sixth hour. (1)

d. Give one reason why the mode in part (b) is not a good way to describe a typical hour in the shop. (1)

(5 marks)

a) range = highest − lowest

The lowest is 4 and the fifth hour is the highest

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4 + 8 = 12

b)

4, 9, 6, 4, 12

4 appears twice

mode = 4

c) another number has to appear twice

6 (or 9 or 12)

d)

4 is the lowest value

All the other hours had more customers

a) 12 b) 4 c) 6, 9 or 12 d) the mode is the lowest value

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