Test - Data: averages and charts

Year: Year 7 · Duration: 45 minutes · /20

Name:	Date:	**Mark:** /20

Question	1	2	3	4	5	Total
marks	4	4	4	4	4	**20**
Mark						

Show your working.

Question 1 (4 marks)

Question 1 – Averages

Here are the numbers of text messages sent by 7 pupils in one day: 12, 5, 9, 20, 5, 14, 7.

a. Write down the mode. (1 mark)
b. Find the median. (1 mark)
c. Find the mean. (1 mark)
d. Find the range. (1 mark)

Question 2 (4 marks)

Question 2 – Frequency table

The table shows the number of pets owned by 25 pupils.

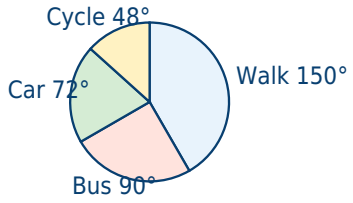
Pets	0	1	2	3	4
Frequency	4	9	7	3	2

a. Which is the modal number of pets? (1 mark)
b. Work out the total number of pets owned. (1 mark)
c. Work out the mean number of pets. (1 mark)
d. Find the median. (1 mark)

Question 3 (4 marks)

Question 3 – Pie chart

A pie chart shows how 60 pupils travel to school: walk 150°, bus 90°, car 72°, cycle 48°.



a. How many pupils walk? (1 mark)
b. How many pupils travel by car? (1 mark)
c. What percentage cycle? Give your answer to 1 decimal place. (2 marks)

Question 4 (4 marks)

Question 4 – Problem: comparing swimmers

Two swimmers record their times (in seconds) for 50 m in six races. Mia: 38, 40, 37, 39, 38, 44. Noah: 36, 41, 35, 42, 34, 46.

a. Find the mean and the range for each swimmer. (2 marks)
b. Which swimmer is faster on average? (1 mark)
c. Which swimmer is more consistent? Explain. (1 mark)

Question 5 (4 marks)

Question 5 – Problem: the school survey

A school asks 50 pupils to choose their favourite sport. 18 choose football, 12 choose netball, 10 choose swimming and the rest choose athletics.

a. How many choose athletics? (1 mark)
b. Draw a pie chart: work out the angle for each sport. (2 marks)
c. What percentage choose netball? (1 mark)