Test - Statistics: averages and grouped data

Year: Year 9 · 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 seven numbers: $6, 9, 4, 9, 7, 5, 9$.

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

Question 2 (4 marks)

Question 2 – A frequency table

A class rated a film from 1 to 5 stars.

Rating	1	2	3	4	5
Frequency	2	3	5	6	4

a. Work out the total number of ratings and the total number of stars. (2 marks)
b. Find the mean rating. (1 mark)
c. Find the median rating. (1 mark)

Question 3 (4 marks)

Question 3 – Grouped data

The table shows the masses of 20 parcels.

Mass w (kg)	0	10	20
Frequency	5	8	7

a. Write the modal class. (1 mark)

b. Complete the midpoints (5, 15, 25) and calculate an estimate of the mean. (3 marks)

Question 4 (4 marks)

Question 4 – Problem: test marks

Five test marks have a mean of 14.

a. Find the total of the five marks. (1 mark)
b. A sixth test is taken and the mean rises to 15. Find the sixth mark. (2 marks)
c. If the sixth mark had been 8 instead, find the new mean. (1 mark)

Question 5 (4 marks)

Question 5 – Problem: two teams

Team X scores a mean of 3.2 goals per match with a range of 4. Team Y scores a mean of 3.0 goals per match with a range of 1.

a. Which team has the higher average? (1 mark)
b. Which team is more consistent? (1 mark)
c. Which team would you expect to win a match? Give a reason using both statistics. (2 marks)