Shape, centre and spread

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Find mean, median and range for 4, 6, 6, 8, 11. [2 marks]

Total 35 divided by count 5; third value 6; $11 - 4 = 7$.

Answer: Mean 7; median 6; range 7.

2. A long tail extends to high values. Name the skew. [2 marks]

The tail points towards larger values.

Answer: Positive/right skew.

3. Groups share median 15 but ranges 4 and 20. State one comparison. [2 marks]

The medians match; ranges differ.

Answer: The second group has wider overall spread.

4. Why use median for strongly right-skewed income? [2 marks]

The best summary also depends on the question.

Answer: It is less affected by a few very high incomes than the mean.

5. Five observations have mean 12. Find their total. [2 marks]

Mean multiplied by count.

Answer: 60.

6. Find the mode of 2, 2, 3, 5, 5, 6. [2 marks]

Each occurs twice, the highest frequency.

Answer: Two modes: 2 and 5.