Grade 6 · Mean, Median, Range, IQR and Mean Absolute Deviation · Test

Common Core 6.SP.A.3, 6.SP.B.5c, 6.SP.B.5d · mathovore.fr

Name: _____ Date: ____/____/_____ Score: _____

> This 45-minute test checks Grade 6 skills on the mean, median, range, interquartile range, and mean absolute deviation. It has eight questions worth 20 points in all. Show your work, order data before finding the median, and explain your choice of measure when asked.

Test information

- **Grade:** Grade 6
- **Chapter:** Mean, Median, Range, IQR and Mean Absolute Deviation
- **Common Core:** 6.SP.A.3, 6.SP.B.5c, 6.SP.B.5d
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 3 pts; Question 4: 3 pts; Question 5: 3 pts; Question 6: 2 pts; Question 7: 3 pts; Question 8: 2 pts)

Question 1: Mean and median (2 points)

The data set is 6, 3, 12, 8, 5, and 14. Find the mean and the median.

Question 2: Range and IQR (2 points)

Find the range and the interquartile range of 14, 20, 11, 17, 23, 12, 19, and 25.

Question 3: Mean absolute deviation (3 points)

The dot plot shows five data values. (a) Find the mean. *(1 point)* (b) Find the mean absolute deviation. *(2 points)*

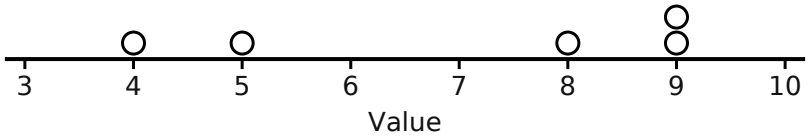


Figure for Question 3.

Question 4: Missing test score (3 points)

Priya has scores of 80, 90, 78, and 88 on four tests. (a) What score on a fifth test gives a mean of 84? *(2 points)* (b) If the fifth score is 100 instead, what is the mean of the five scores? *(1 point)*

Question 5: Yard sale prices (3 points)

The dot plot shows the prices, in dollars, of seven items at a yard sale. (a) Find the mean and the median. *(2 points)* (b) Which is the better measure of the typical price? Explain. *(1 point)*

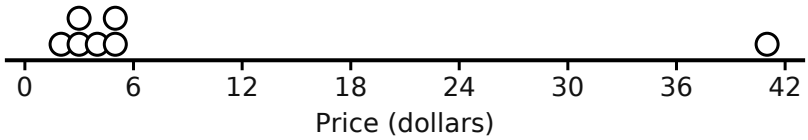
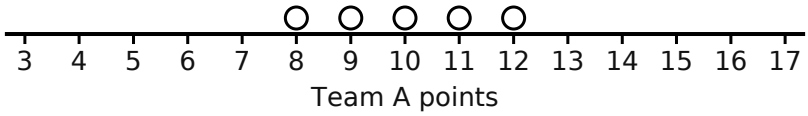


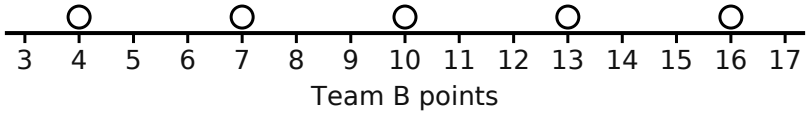
Figure for Question 5.

Question 6: Compare two teams (2 points)

Two teams each have a mean of 10 points. Team A scored 8, 9, 10, 11, and 12. Team B scored 4, 7, 10, 13, and 16. Find the MAD of each team.



Team A.



Team B.

Question 7: Reading a box plot (3 points)

The box plot shows the number of minutes 60 students spend on homework. (a) Find the interquartile range. *(1 point)* (b) Find the range. *(1 point)* (c) What fraction of the students spend more than 34 minutes? *(1 point)*

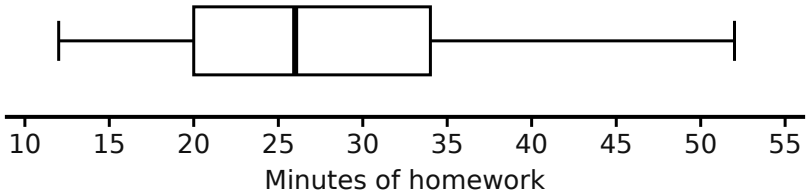


Figure for Question 7.

Question 8: Salaries (2 points)

Five workers at a small company earn $32,000, $34,000, $35,000, $36,000, and $163,000. The owner says the typical salary is the mean. Find the mean and the median, and tell which better describes a typical salary.