

Grade 6 - Mean, Median, Spread and Box Plots - Worksheet

Common Core 6.SP.A.3, 6.SP.B.5c, 6.SP.B.5d · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

These 20 problems practice measures of center and spread (Common Core 6.SP.A.3, 6.SP.B.5c, and 6.SP.B.5d). You will find the mean, median, mode, range, MAD, and IQR, build and read box plots, and decide which measure best describes a data set.

Grade 6 · Common Core State Standards: **6.SP.A.3, 6.SP.B.5c, 6.SP.B.5d**

Exercise 1 - Mean

Find the mean of 4, 8, 6, 10, 12.

Exercise 2 - Median (odd)

Find the median of 7, 3, 9, 5, 1.

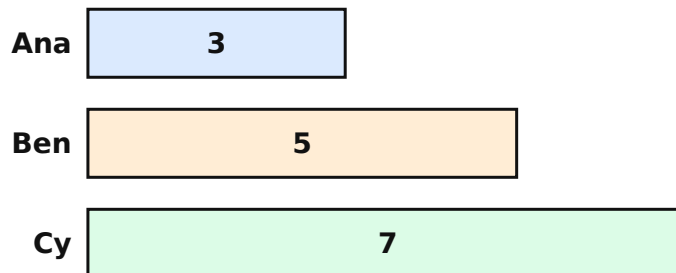
Exercise 3 - Median (even)

Find the median of 2, 4, 6, 10.

Exercise 4 - Mode and range

Find the mode and the range of 3, 5, 5, 6, 7, 5, 9, 6.

Exercise 5 - Mean as a fair share



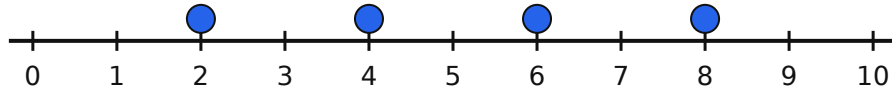
Three students read 3, 5, and 7 books.

Ana, Ben, and Cy read 3, 5, and 7 books. If they shared the books equally, how many would each have? What is the mean?

Exercise 6 - Missing value

The mean of five numbers is 12. Four of the numbers are 10, 14, 9, and 13. Find the fifth number.

Exercise 7 - Mean absolute deviation



The mean is 5.

Find the mean absolute deviation (MAD) of 2, 4, 6, 8.

Exercise 8 - MAD of five values

Find the mean and the MAD of 10, 12, 14, 16, 18.

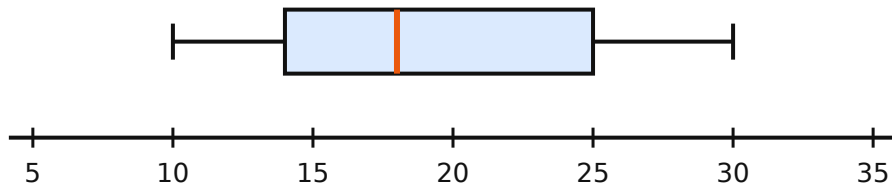
Exercise 9 - Quartiles and IQR

Find the median, the first quartile, the third quartile, and the interquartile range (IQR) of 3, 5, 7, 8, 10, 12, 14, 15, 18.

Exercise 10 - Make a box plot

Find the five-number summary of 2, 4, 5, 7, 8, 9, 12, 14 and draw a box plot.

Exercise 11 - Read a box plot



Minutes spent on homework.

Use the box plot to find the median, the range, and the IQR.

Exercise 12 - Effect of an outlier

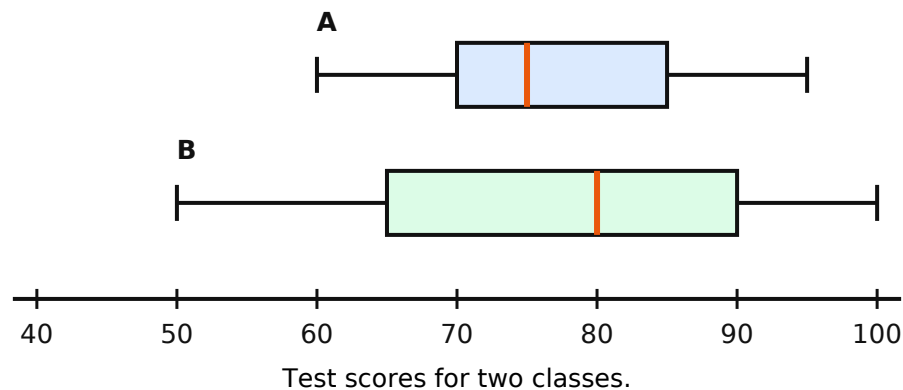
The data set is 5, 6, 7, 8, 9, 40. Find the mean and median with the value 40 and without it.

Which measure changes more?

Exercise 13 - Choose the measure

The salaries (in thousands of dollars) at a small company are 30, 32, 35, 36, 38, and 250. Which measure of center better describes a typical salary, the mean or the median? Explain.

Exercise 14 - Compare two box plots



Compare the medians and the IQRs of the two classes.

Exercise 15 - Mean from a table

Score	6	7	8	9
Frequency	1	3	4	2

Quiz scores.

Find the number of students and the mean score.

Exercise 16 - Basketball points

Jamal scored 12, 15, 9, 18, 12, 20, 15, 15 points in 8 games. Find the mean, median, and mode.

Exercise 17 - Weekly temperatures

The high temperatures ($^{\circ}\text{F}$) for a week were 41, 38, 45, 52, 39, 47, 44. Find the mean, median, and range.

Exercise 18 - Mean and median together

Find the mean and the median of the whole numbers from 1 through 10.

Exercise 19 - Interpret the IQR

A box plot of the times (in minutes) that sixth graders take to get to school has $Q1 = 8$ and $Q3 = 20$. What does the IQR tell about the data?

Exercise 20 - Adding a score

Priya's first four test scores are 80, 85, 90, and 95. Find her mean. Then she scores 70 on the fifth test. Find the new mean and tell whether it went up or down.