Describe Data by Mean Absolute Deviation

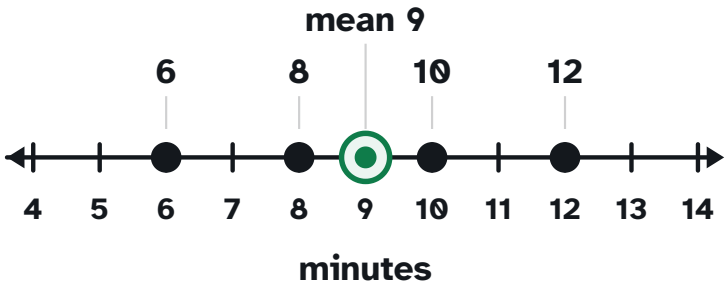
Find the mean absolute deviation to show how spread out data is.

Name _____ **Date** _____

Tonight's spark

A corner store delivers groceries. Four deliveries took 6, 8, 10 and 12 minutes. The mean is 9 minutes. About how far is a typical delivery from 9?

Guess first: is a typical gap more than 4 minutes, or less?



Our class model: MAD, the average gap

Try it

Work it out on paper. Write one answer on each line.

1 **What does the mean absolute deviation (MAD) tell you about a data set?**

A. How far the values are from the mean, on average **B.** The middle value

C. The value that appears most **D.** The greatest value minus the least

My answer _____

2 **The mean of a data set is 10. How far is the value 14 from the mean?**

A. 24 **B.** 4 **C.** 10 **D.** 14

My answer _____

3 **The absolute deviations of a data set are 4, 0, 2, 2. What is the MAD?**

A. 8 **B.** 4 **C.** 2 **D.** 0

My answer _____

4 **The data are 6, 12, and 18, and the mean is 12. What is the MAD?**

A. 4 **B.** 12 **C.** 6 **D.** 0

My answer _____

5 **The data are 2, 2, 6, 10, and the mean is 5. What is the MAD?**

A. 12 **B.** 3 **C.** 5 **D.** 8

My answer _____

6 **Which data set has the smaller MAD?**

A. 5, 20, 35 **B.** They have the same MAD **C.** You cannot compare MADs **D.** 20, 21, 22

My answer _____

Talk about it

Can a distance from the mean be negative?

Home mission

Pick four whole-dollar prices on a receipt. Find their mean together. Then say how far each price is from the mean. Is the MAD small or big?

If we get stuck, ask

- What is the mean first? We need it before anything else.
- How far is each number from the mean? Count the distance.
- Is this MAD small or large? What does that say about the data?

Do it on a screen

Scan or type the link. Same lesson, with hints.

eduwonderlab.com/lessons/2-9/homework.html

How did it feel? (optional)

Tricky Getting there Got it