

Lesson 2-9

Reinforce Understanding

Describe Data by Mean Absolute Deviation

I can find the mean absolute deviation (MAD) to describe how spread out data is.

Worked model

Five snack prices in cents are 80, 90, 100, 110, 120. Find the mean absolute deviation.

1. Find the mean: the five prices total 500, and sharing that evenly gives 100.
2. Measure each price's distance from 100: 20, 10, 0, 10, 20.
3. Add the distances. They come to 60.
4. Share that total distance among the five prices.

Answer: The MAD is 12 cents — a typical price sits about 12 cents away from the mean.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. The mean is 10. Place each data value on the number line, then find how far each is from the mean: Data: 7, 10, 13.

Mark and label each value on the number line.

Show your thinking

2. The mean of a data set is 15. One value is 11. What is the absolute deviation of that value from the mean?

Circle the letter of the best answer. Show how you know.

- A. 4
- B. -4
- C. 11
- D. 26

Show your work

3. A data set has absolute deviations of 3, 1, 5, 2, 4. What is the MAD?

Circle the letter of the best answer. Show how you know.

- A. 1
- B. 3
- C. 5
- D. 15

Show your work
