Name_____ Date_____ Period_____

LESSON 2-9 · SESSION 2 · PREREQUISITE PRACTICE B · SKILL 1 OF 2

Find the MAD

Builds on Lesson 2-9 Session 1 · 6.SP.B.5c

TODAY'S LESSON	In Problem 2 you find the MAD of Trail A and the MAD of Trail B before you compare them.
YOU NEED TO	Find the mean absolute deviation (MAD): the mean of the distances from the mean. **You will use it in Practice Form A, problems 2 and 5.**

STEPS TO FOLLOW

use these same steps on every problem

1. **Find** each value's distance from the mean.
2. **Add** the distances.
3. **Divide** by the number of values.

WATCH ME

the steps in action

The mean of 66, 70, 74, 78 is 72. Find the MAD.

Step 1 Distances: 6, 2, 2, 6.

Step 2 6 + 2 + 2 + 6 = 16.

Step 3 16 ÷ 4 = 4.

Answer **4**

TRY IT WITH HELP

fill in each step

1. The mean of 29, 33, 37, 41 is 35. Find the MAD.

Step 1 Distances: _____

Step 2 6 + 2 + 2 + 6 = _____

Step 3 16 ÷ 4 = _____

2. The mean of 6, 8, 10, 12 is 9. Find the MAD.

Step 1 Distances: _____

Step 2 3 + 1 + 1 + 3 = _____

Step 3 8 ÷ 4 = _____

YOUR TURN

use the steps on your own

3. Find the MAD. The mean is given.

a. 7, 8, 9, 8 (mean 8) _____

b. 4, 10, 6, 12 (mean 8) _____

c. 40, 46, 54, 60 (mean 50) _____

d. 43, 43, 57, 57 (mean 50) _____

Explain What a MAD Means

Builds on Lesson 2-9 Session 1 · 6.SP.B.5c

TODAY'S LESSON	Team N's MAD of 3 means its scores sit about 3 points from 82.
YOU NEED TO	Explain a MAD: the typical distance from the mean. **You will use it in Practice Form A, problems 4 and 7.**

STEPS TO FOLLOW

use these same steps on every problem

1. **Name** the mean and the MAD.
2. **Say**: the values are typically about MAD away from the mean.
3. **Compare**: a smaller MAD means steadier values.

WATCH ME

the steps in action

Team N has mean 82 and MAD 3. What does the MAD mean?

Step 1 Mean 82, MAD 3.
Step 2 Scores are typically about 3 points from 82.
Step 3 That is close, so Team N is steady.
Answer **Scores are typically about 3 points from 82.**

TRY IT WITH HELP

fill in each step

4. Times have mean 45 min and MAD 3 min. What does the MAD mean?

Step 1 Mean _____, MAD _____.
Step 2 Times are typically about _____ min from 45.
Step 3 Is 3 min close or far? _____

5. Set A has MAD 2. Set B has MAD 9. Which is steadier?

Step 1 MADs: _____ and _____.
Step 2 A's values are typically about _____ from its mean.
Step 3 The smaller MAD is steadier: Set _____.

YOUR TURN

use the steps on your own

6. Which set is steadier?

a. MAD 14 or MAD 3 _____
b. MAD 0.5 or MAD 3 _____
c. MAD 4 or MAD 9 _____
d. MAD 6 or MAD 11 _____

READY CHECK

a problem like the one in today's lesson

7. Supplier 1 has MAD 0.5 day. Supplier 2 has MAD 3 days. Which is true?

A Supplier 1 varies less.
B Supplier 2 varies less.
C They vary the same.
D You cannot tell.

CHECK YOURSELF ☐ I can do this on my own ☐ I need a little help ☐ I have a question about #____