Name_____ Date_____ Period_____

LESSON 2-10 · SESSION 1 · PRACTICE · FORM B

Mean or Median?

Learning target – I can choose the mean or the median to describe a data set based on its shape. · 6.SP.B.5d

REMEMBER

- An **outlier** pulls the **mean** toward it. The **median** (middle value) barely moves.
- **Skewed** data or an outlier: use the **median**. **Symmetric**, no outlier: either works; use the **mean**.
- Mean goes with MAD. Median goes with IQR.

WORKED EXAMPLE

Five friends saved \$6, \$7, \$8, \$9 and \$50. Which center describes a typical friend?

Step 1 50 is an outlier.

Step 2 Median = 8. Mean = 80 ÷ 5 = 16, more than four of the five values.

Step 3 The median is closer to most of the values.

Answer **The median, \$8**

WORDS **outlier** *(valor atípico)* · **skewed** *(asimétrico)* · **symmetric** *(simétrico)* · **measure of center** *(medida de centro)*

PRACTICE

show your work · label units

1. Write the better measure of center: mean or median.

a. 30, 32, 34, 36, 38 _____

b. 30, 32, 34, 36, 700 _____

c. 5, 6, 7, 8, 9, 10 _____

d. 1, 45, 47, 49, 51 _____

2. **Trees in One Park.** Five trees are 14, 17, 19, 22 and 78 years old.

a. Outlier: _____

b. Median: _____ years

c. Mean: _____ years

d. Better center: _____

3. **Movie Runtimes.** Five runtimes are 92, 96, 99, 104 and 154 minutes.

Hint *Put the values in order. The median is the middle one.*

a. Median: _____ min

b. Mean: _____ min

c. Which measure is pulled up by the long film? _____

Show your work.

4. **Taxi Fares.** Five fares are $10, $13, $15, $17 and $85.

a. Median: _____ dollars

b. Mean: _____ dollars

Show your work.

5. **Typical Value Claim.** For 40, 44, 47, 49, 180, Tyrell says the mean is a good typical value. Find the mean. Is he right?

Hint *Count how many values sit near the mean.*

Show your work.

Mean_____

6. **Salary Report.** Six salaries, in thousands of dollars, are 36, 38, 40, 42, 44 and 208.

Hint *With six values, average the two middle values.*

a. Mean: _____

b. Median: _____

c. Which should a reporter publish? Why? _____

Show your work.

7. **No Outlier.** Five test scores are 70, 72, 74, 76 and 78. Find the mean and the median. Which would you report?

Hint *Check how close the two measures land.*

Show your work.

Mean, median_____

8. **Family Party.** Seven ages at a party are 6, 8, 10, 13, 15, 16 and 72.

a. Median: _____ years

b. Mean: _____ years

c. Which center describes the group better? Which spread goes with it? _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. **Jonah's Work.** For 3, 4, 6, 8, 154, Jonah reported the mean, 35, as the typical value. Explain his mistake and give a better typical value.

_____

_____

TEST PRACTICE

choose the best answer

10. Roughly symmetric data with no outlier is best described by the —

A range **B** IQR **C** outlier **D** mean

11. The mean naturally pairs with the —

A IQR **B** median **C** MAD **D** range

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

19 M	37.5 X	40 Q	28 D	74 N	13 S	99 E	72 I	90 Z	41 A

#2b	#3a	#4b	#5	#6b	#7	#8a

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