Name_____ Date_____ Period_____

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

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. 20, 22, 24, 26, 28 _____

b. 20, 22, 24, 26, 500 _____

c. 7, 8, 9, 10, 11, 12 _____

d. 3, 4, 5, 6, 900 _____

2. **Homes on One Street.** Five homes are 18, 21, 23, 25 and 88 years old.

a. Outlier: _____

b. Median: _____ years

c. Mean: _____ years

d. Better center: _____

3. **Movie Runtimes.** Five runtimes are 95, 98, 101, 103 and 143 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 $12, $14, $16, $18 and $95.

a. Median: _____ dollars

b. Mean: _____ dollars

Show your work.

5. Typical Value Claim. For 50, 54, 57, 59, 200, Corinne says the mean is a good typical value. Find the mean. Is she right?

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

Show your work.

Mean_____

6. Salary Report. Six salaries, in thousands of dollars, are 38, 40, 42, 44, 46 and 210.

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 76, 78, 80, 82 and 84. 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 8, 9, 11, 12, 13, 15 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. Reuben's Work. For 2, 3, 5, 7, 148, Reuben reported the mean, 33, as the typical value. Explain his mistake and give a better typical value.

_____

_____

TEST PRACTICE

choose the best answer

10. Data with an outlier is best described by the –

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

11. The median naturally pairs with the –

A IQR **B** MAD **C** mean **D** total

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

23 O	80 E	84 L	101 U	43 I	12 R	42 Q	38.75 X	31 T	105 Z

#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 #___