Name_____ Date_____ Period_____

LESSON 7-3 · SESSION 1 · PRACTICE · FORM A

Absolute Value as Distance

Learning target – I can use absolute value to describe how far a number is from zero. · 6.NS.C.7c

REMEMBER

- **Absolute value** is how far a number is from 0. Write it with bars: $|-4| = 4$ and $|4| = 4$.
- Distance is never negative, so **absolute value is never negative**.
- **Greater** means farther right. **Farther from 0** means a bigger absolute value. −9 is farther from 0 than 4, but 4 is greater.

WORKED EXAMPLE

Find $|-13|$ and $|6|$. Which number is farther from 0?

Step 1 −13 is 13 units left of 0, so $|-13| = 13$.

Step 2 6 is 6 units right of 0, so $|6| = 6$.

Step 3 Compare the distances: $13 > 6$.

Answer **−13 is farther from 0**

WORDS **absolute value** *(valor absoluto)* · **distance** *(distancia)* · **magnitude** *(magnitud)*

PRACTICE

show your work · label units

1. Find each absolute value.

a. $|-16| =$ ____

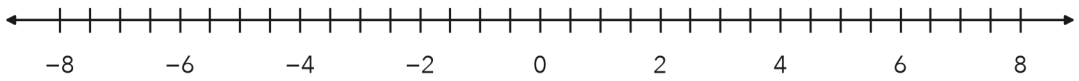
b. $|9| =$ ____

c. $|0| =$ ____

d. $|-2.75| =$ ____

2. **Beaker Readings.** Four beakers read: A −6 degrees, B 2.5 degrees, C −0.5 degrees, D 8 degrees.

Hint *Count the units from 0 to each point.*



a. Absolute values: A ___ B ___ C ___ D ___

b. Plot all four. Which beaker is closest to 0? Farthest? _____

3. **Two Accounts.** One account has a balance of −45 dollars. Another has a balance of 12 dollars.

a. Absolute value of each balance: _____

b. Which account is closer to a zero balance? _____

Show your work.

4. Survey Cards. One card reads −7.5 m and another reads 7.5 m. Find each absolute value. Do they mark the same place?

Hint *Same distance does not mean same side.*

Show your work.

Answer_____

5. Cold Storage. A cooler logged −14 degrees at midnight. Find the absolute value. What does it tell you?

Show your work.

Answer_____

6. Greater Magnitude. Which number has the greater absolute value, −36 or 22? Justify your choice.

Hint *Compare 36 and 22.*

Show your work.

Number_____

7. Omar's Claim. Omar says |−5.2| = −5.2 because the number inside the bars is negative. Is he right? Give the correct value.

Hint *Can a distance be negative?*

Show your work.

|−5.2|_____

8. Bank Balances. Three accounts read −85, 40, and −120 dollars.

a. Find the absolute value of each balance. _____

b. Which balance is farthest from 0? _____

c. Which balance is greatest? Why is this a different question? _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Bianca's Work. Bianca said −19 is closer to 0 than 6: "The negative number is smaller, so it must be closer to zero." Explain her mistake. Then say which number is closer to 0.

_____

_____

TEST PRACTICE

choose the best answer

10. |−17| equals –

A −17 **B** 17 **C** 0 **D** 1/17

11. Which number is closest to 0?

A −9 **B** 7 **C** −3 **D** 5

SELF-CHECK CODE

find your answer · copy its letter into that problem's box · spell a math word

−120 R	−36 U	22 Q	12 E	40 E	−85 Z	14 S	7.5 A	−14 X	16 M

#1a	#3b	#4	#5	#6	#8b	#8c

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