Name_____ Date_____ Period_____

LESSON 7-2 · SESSION 2 · PRACTICE · FORM A

Opposites of Rational Numbers

Learning target – I can find the opposite of a rational number and explain what taking the opposite twice does. · 6.NS.C.6a

REMEMBER

- **Opposites** are the same distance from 0 on different sides: 2.5 and −2.5. Zero is its own opposite.
- −(4.5) means **the opposite of 4.5**, so −(4.5) = −4.5 and −(−4.5) = 4.5.
- Taking the opposite **twice** gives back the number you started with.

WORKED EXAMPLE

Find −(−5.3). Then find the opposite of your answer.

Step 1 −5.3 is 5.3 units left of 0.

Step 2 Flip to the other side of 0, keeping the distance 5.3: −(−5.3) = 5.3.

Step 3 Flip again: the opposite of 5.3 is −5.3.

Answer **5.3, then −5.3 (two flips return to the start)**

WORDS **opposite** *(opuesto)* · **opposite of the opposite** *(opuesto del opuesto)* · **rational number** *(número racional)*

PRACTICE

show your work · label units

1. Write the opposite of each number, or find the value.

a. −2.5 _____ **b.** 7/10 _____ **c.** −1/4 _____

d. 0 _____ **e.** −(4.5) = _____ **f.** −(−4.5) = _____

2. **Scuba Dive Log.** A dive log lists four depths: reef −4.5 m, ledge −7.25 m, wreck −11.5 m, sandbar −0.8 m.

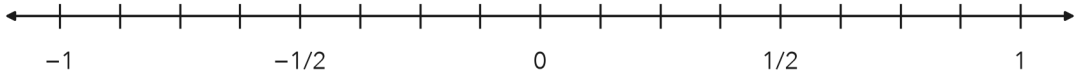
a. Write the opposite of each depth. ___ ___ ___ ___

b. How far from 0 is the ledge depth? _____ m

Show your work.

3. **Card Flips.** Nadia wrote −7/8 on a card. She flipped it to its opposite, then flipped that result to its opposite. What number does she have now?

Hint *Do one flip at a time and mark where each lands.*



Answer_____

4. **Club Balance.** A club balance dropped to −18.6 dollars in March. In April it changed to the opposite amount. What is the April balance?

Hint *Same distance from 0, other side.*

Show your work.

Answer_____ dollars

5. **Missing Start.** A number's opposite is −4.8. What number did you start with?

Hint *Flip back: take the opposite of −4.8.*

Show your work.

Start_____

6. **Ladder and Pit.** A ladder top reaches 6.75 feet above a shop floor (0). A pit bottom sits at the opposite value.

   a. Write the number for the pit bottom. _____ ft

   b. How far is each one from the floor? _____ ft

Show your work.

7. **Twice Over.** What number is the opposite of the opposite of −6.35?

Hint *Two flips land where you started.*

Show your work.

Answer_____

8. **Three Readings.** Three sensors read −4.5, 4.5 and −0.5 degrees.

   a. Write the opposite of each reading. _____

   b. Which original reading is closest to 0? _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. **Priya's Work.** Priya wrote: "The opposite of the opposite of 8.6 is −8.6, because the second opposite makes the number negative." Explain her mistake and give the correct answer.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. −(−3.8) equals –

A −3.8 **B** 3.8 **C** 0 **D** −0.38

11. The opposite of −5/6 is –

A −5/6 **B** 6/5 **C** 5/6 **D** −6/5

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

−6.35 C	7/8 Q	−4.8 X	−0.5 T	18.6 F	4.8 L	7.25 R	−7/8 E	−6.75 E	−18.6 Z

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

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