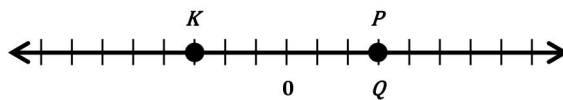


1. Read each description carefully and write an equation that represents the description.
 - a. The opposite of negative seven
 - b. The opposite of the opposite of twenty-five
 - c. The opposite of fifteen
 - d. The opposite of negative thirty-six

2. Jose graphed the opposite of the opposite of 3 on the number line. First, he graphed point P on the number line 3 units to the right of zero. Next, he graphed the opposite of P on the number line 3 units to the left of zero and labeled it K . Finally, he graphed the opposite of K and labeled it Q .



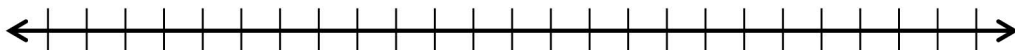
- a. Is his diagram correct? Explain. If the diagram is not correct, explain his error and correctly locate and label point Q .
 - b. Write the relationship between the points:

P and K _____

K and Q _____

P and Q _____
3. Read each real-world description. Write the integer that represents the opposite of the opposite. Show your work to support your answer.
 - a. A temperature rise of 15 degrees Fahrenheit
 - b. A gain of 55 yards
 - c. A loss of 10 pounds
 - d. A withdrawal of \$2,000

 4. Write the integer that represents the statement. Locate and label each point on the number line below.
 - a. The opposite of a gain of 6
 - b. The opposite of a deposit of \$10
 - c. The opposite of the opposite of 0
 - d. The opposite of the opposite of 4
 - e. The opposite of the opposite of a loss of 5

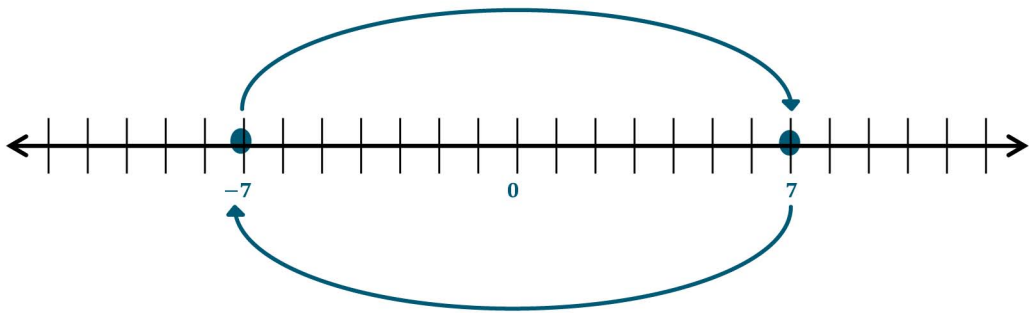


1. Jane completes several example problems that ask her to find the opposite of the opposite of a number, and for each example, the result is a positive number. Jane concludes that when she takes the opposite of the opposite of any number, the result will always be positive. Is Jane correct? Why or why not?

She is not correct. The opposite of the opposite of a number is the original number. So, if Jane starts with a negative number, she will end with a negative number.

2. To support your answer from the previous question, create an example, written as an equation. Illustrate your example on the number line below.

If Jane starts with -7 , the opposite of the opposite of -7 is written as $-(-(-7)) = -7$ or the opposite of -7 : $-(-7) = 7$; the opposite of 7 : $-(7) = -7$.



1. Read each description carefully and write an equation that represents the description.

- a. The opposite of negative seven

$$-(-7) = 7$$

- b. The opposite of the opposite of twenty-five

$$-(-25) = 25$$

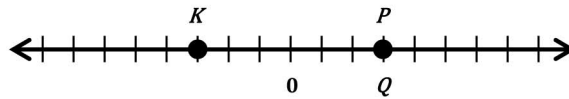
- c. The opposite of fifteen

$$-(15) = -15$$

- d. The opposite of negative thirty-six

$$-(-36) = 36$$

2. Jose graphed the opposite of the opposite of 3 on the number line. First, he graphed point P on the number line 3 units to the right of zero. Next, he graphed the opposite of P on the number line 3 units to the left of zero and labeled it K . Finally, he graphed the opposite of K and labeled it Q .



- a. Is his diagram correct? Explain. If the diagram is not correct, explain his error and correctly locate and label point Q .

Yes, his diagram is correct. It shows that P is 3 because it is 3 units to the right of zero. The opposite of 3 is -3 , which is point K (3 units to the left of zero). The opposite of -3 is 3, so point Q is 3 units to the right of zero.

- b. Write the relationship between the points:

P and K They are opposites.

K and Q They are opposites.

P and Q They are the same.

3. Read each real-world description. Write the integer that represents the opposite of the opposite. Show your work to support your answer.

- a. A temperature rise of 15 degrees Fahrenheit.

-15 is the opposite of 15 (fall in temperature)

15 is the opposite of -15 (rise in temperature)

$$-(-15) = 15$$

- b. A gain of 55 yards.

-55 is the opposite of 55 (loss of yards)

55 is the opposite of -55 (gain of yards)

$$-(-55) = 55$$

- c. A loss of 10 pounds.

10 is the opposite of -10 (gain of pounds)

-10 is the opposite of 10 (loss of pounds)

$$-(-10) = -10$$

- d. A withdrawal of \$2,000.

2,000 is the opposite of $-2,000$ (deposit)

$-2,000$ is the opposite of 2,000 (withdrawal)

$$-(-2,000) = -2,000$$

4. Write the integer that represents the statement. Locate and label each point on the number line below.

- a. The opposite of a gain of 6 -6
- b. The opposite of a deposit of \$10 -10
- c. The opposite of the opposite of 0 0
- d. The opposite of the opposite of 4 4
- e. The opposite of the opposite of a loss of 5 -5

