

NAME _____

DATE _____

PERIOD _____

Unit 7, Lesson 1: Positive and Negative Numbers

1.
 - a. Is a temperature of -11 degrees warmer or colder than a temperature of -15 degrees?
 - b. Is an elevation of -10 feet closer or farther from the surface of the ocean than an elevation of -8 feet?
 - c. It was 8 degrees at nightfall. The temperature dropped 10 degrees by midnight. What was the temperature at midnight?
 - d. A diver is 25 feet below sea level. After he swims up 15 feet toward the surface, what is his elevation?
2.
 - a. A whale is at the surface of the ocean to breathe. What is the whale's elevation?
 - b. The whale swims down 300 feet to feed. What is the whale's elevation now?
 - c. The whale swims down 150 more feet more. What is the whale's elevation now?
 - d. Plot each of the three elevations as a point on a vertical number line. Label each point with its numeric value.
3. Explain how to calculate a number that is equal to $\frac{2.1}{1.5}$.
(from Unit 6, Lesson 5)
4. Write an equation to represent each situation and then solve the equation.
 - a. Andre drinks 15 ounces of water, which is $\frac{3}{5}$ of a bottle. How much does the bottle hold? Use x for the number of ounces of water the bottle holds.

NAME _____

DATE _____

PERIOD _____

b. A bottle holds 15 ounces of water. Jada drank 8.5 ounces of water. How many ounces of water are left in the bottle? Use y for the number of ounces of water left in the bottle.

c. A bottle holds z ounces of water. A second bottle holds 16 ounces, which is $\frac{8}{5}$ times as much water. How much does the first bottle hold?

(from Unit 6, Lesson 4)

5. A rectangle has an area of 24 square units and a side length of $2\frac{3}{4}$ units. Find the other side length of the rectangle. Show your reasoning.

(from Unit 4, Lesson 13)

NAME _____

DATE _____

PERIOD _____

Unit 7, Lesson 2: Points on the Number Line

1. For each number, name its opposite.

a. -5

d. 0.875

b. 28

e. 0

c. -10.4

f. -8,003

2. Plot the numbers -1.5 , $\frac{3}{2}$, $-\frac{3}{2}$, and $-\frac{4}{3}$ on the number line. Label each point with its numeric value.



3. Plot the following points on a number line.

◦ -1.5

◦ the opposite of 0.5

◦ the opposite of -2

◦ -2

4. a. Represent each of these temperatures in degrees Fahrenheit with a positive or negative number.

i. 5 degrees above zero

ii. 3 degrees below zero

iii. 6 degrees above zero

iv. $2\frac{3}{4}$ degrees below zero

b. Order the temperatures above from the coldest to the warmest.

(from Unit 7, Lesson 1)

NAME _____

DATE _____

PERIOD _____

5. Solve each equation.

a. $8x = \frac{2}{3}$

b. $1\frac{1}{2} = 2x$

c. $5x = \frac{2}{7}$

d. $\frac{1}{4}x = 5$

e. $\frac{1}{5} = \frac{2}{3}x$

(from Unit 6, Lesson 5)

6. Write the solution to each equation as a fraction and as a decimal.

a. $2x = 3$

b. $5y = 3$

c. $0.3z = 0.009$

(from Unit 6, Lesson 5)

7. There are 15.24 centimeters in 6 inches.

a. How many centimeters are in 1 foot?

b. How many centimeters are in 1 yard?

(from Unit 3, Lesson 4)