

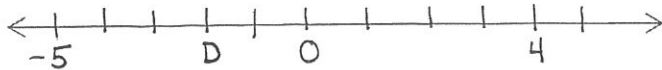
Name:

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Unit 8 Study Guide -Extending the Number System

Directions: Complete each questions carefully. Be sure to show all work.

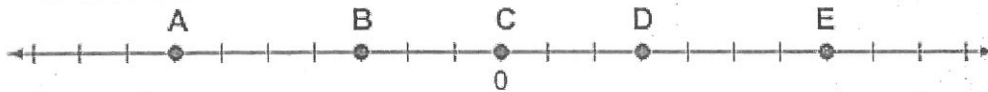


1. What is the opposite of point D?

2. Find the opposite of the following:

- a. 0
- b. -5
- c. 11
- d. -1.28
- e. $-1/2$

3. Elevation is height compared to sea level. If the height of a landmass is below sea level, the elevation is negative. The lowest point in Europe is in Prince Alexander Polder. It has an elevation of -3 meters. Which point on the number line represents -3 meters if each unit is 1 meter?



- A
- C
- E

- B
- D

4. In question #3, state the numerical value for each of the letters.

- A=
- B=
- C=
- D=
- E=

5. It is 46°F outside. If the temperature drops 17°F , what will the temperature be?

A. 29°

B. 5°

C. -5°F

D. -29°F

6. Put the following integers in order from greatest to least: **8, -8, 10, 12, -9, 1**

$-4/3, 0.5, 3, 1/8, 1, 4/5, -0.3, 0.3, -2, 7/8$

7. There are seven rational numbers shown above. Put them in order from least to greatest.

$-7 > -10.5$

8. A mathematical expression is shown above. Which of the following could be a **true** description of the expression?

\$7.00 is a greater debt than \$10.50.

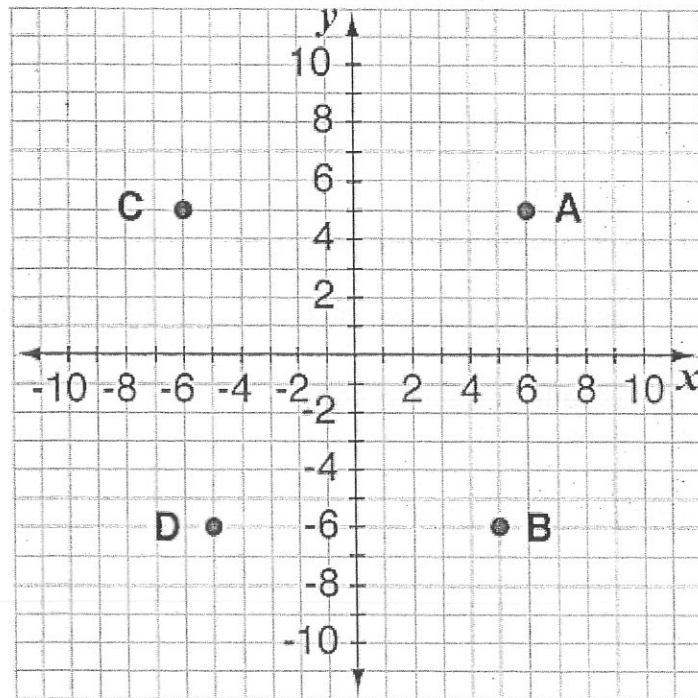
\$7.00 is a greater account balance than \$10.50

-7°F is colder than -10.5°F .

-7 feet is deeper below the ocean than -10.5 feet.

7° below zero is warmer than 10.5° below zero.

9. Give the ordered pair for all of the points in the coordinate plane below.



10. Using the coordinate plane above, graph the following ordered pairs.

E (4,0)

F (-2,10)

G (10,-10)

H (0,6)

11. In which quadrant would the ordered pair (-10,8) be found?

A. Quadrant I

B. Quadrant II

C. Quadrant III

D. Quadrant IV

12. The point $P(-3, -9)$ is reflected across the x -axis to create point Q . Which ordered pair represents the location of point Q ?

(3,9)

(3,-9)

(-3,9)

(-3,-9)

13. The point $(-5, 7)$ is reflected to create $(-5, -7)$. Which of the following is true?





- The point $(-5, 7)$ was reflected across the x -axis.
- The point $(-5, 7)$ was reflected across the y -axis.
- The point $(-5, 7)$ was reflected across the y -axis and then it was reflected across the x -axis.
- The point $(-5, 7)$ was reflected across both the x -axis and the y -axis.
- None of the answer choices is true.

14.

The point $(4, -3)$ was reflected to create point $(-4, 3)$. Which of the following statements are true? Select all that apply.

- The point $(4, -3)$ was reflected across the y -axis to create $(-4, 3)$.
- The point $(4, -3)$ was reflected across the x -axis to create $(-4, 3)$.
- The point $(4, -3)$ was reflected across the y -axis and then the x -axis.
- The point $(4, -3)$ was reflected across the x -axis and then the y -axis.

15. Place the points in their correct locations on the coordinate grid.

			
$(-1.6, -0.8)$	$\left(\frac{3}{5}, -1\frac{1}{2}\right)$	$(-0.4, 1.7)$	$\left(1\frac{9}{10}, -\frac{3}{10}\right)$

