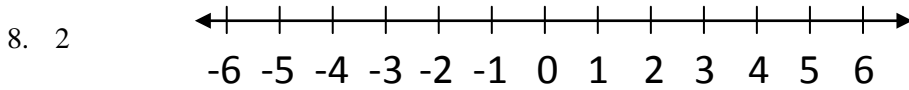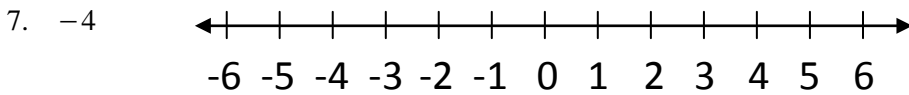Name

Date

Definitions (1-3). Define and give an example.

1. Origin

2. Integers

3. Absolute value

Name an integer to represent each situation.

4. A bank withdrawal of $150.

5. A 2500 ft below sea level.

6. 200 miles south of the border

Graph each integer and its opposite on a number line.

7. -4

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6

8. 2

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6

9. Compare. Write < or >.

   a) -7 ☐ 7 b) -3 ☐ -8 c) -1 ☐ -3 d) 0 ☐ -5

10. In Juneau, Alaska the temperature was $-30°$ below zero. On the same day, the temperature in Las Vegas, Nevada was $42°$ above zero. Write two inequalities that compare the temperature in these two cities. _____

11. Order each set of integers from least to greatest.

    a) $8, -12, -4$

    b) $-6, 8, -10, 12$

12. Find the absolute value of each of the following.

    a) $|-9| =$ b) $|5| =$ c) $|0| =$ d) $|-3| =$

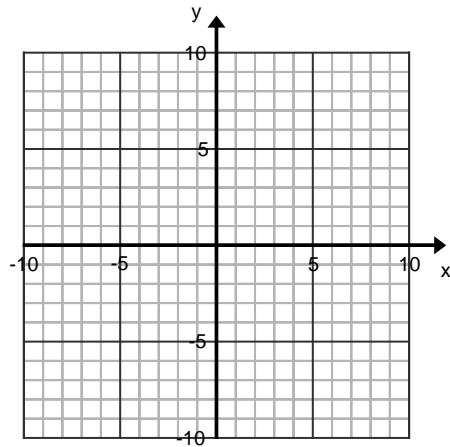13. Graph each point on the coordinate plane.
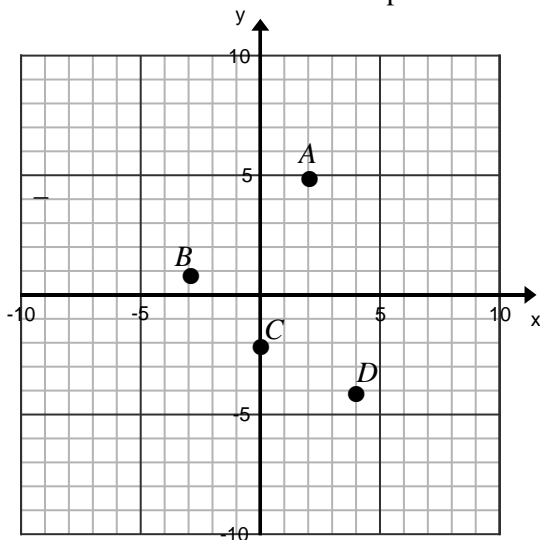   Label each point.

    A) $(-5, 2)$

    B) $(3, 0)$

    C) $(-4, -5)$

    D) $(0, 2)$

    E) $(2, -5)$

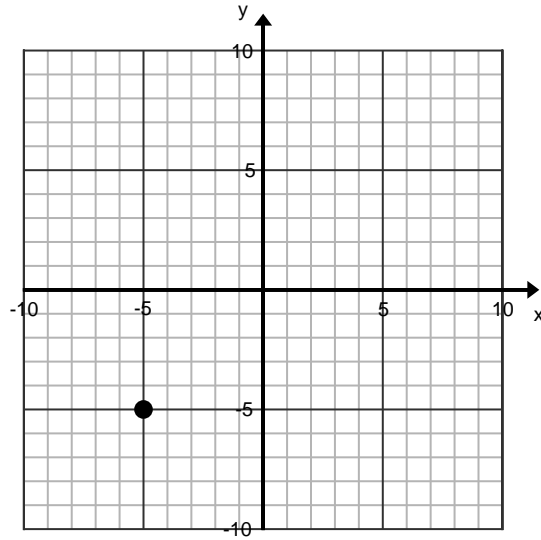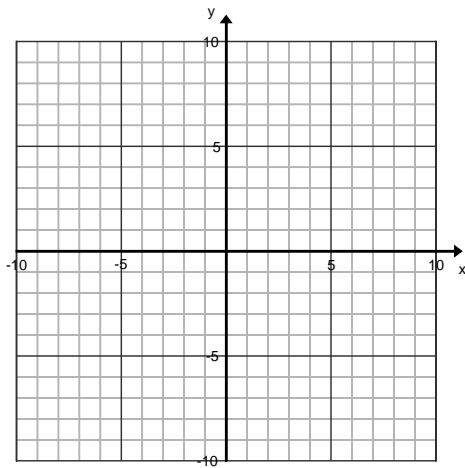14. Write the coordinates of each point.

A _____

B _____

C _____

D _____

15. When a point in Quadrant I is reflected across the *x*-axis, the new point is located in Quadrant ___.

16. Given one point on the graph to the right, graph and identify the coordinates of the point that is its reflection across the *y*-axis.
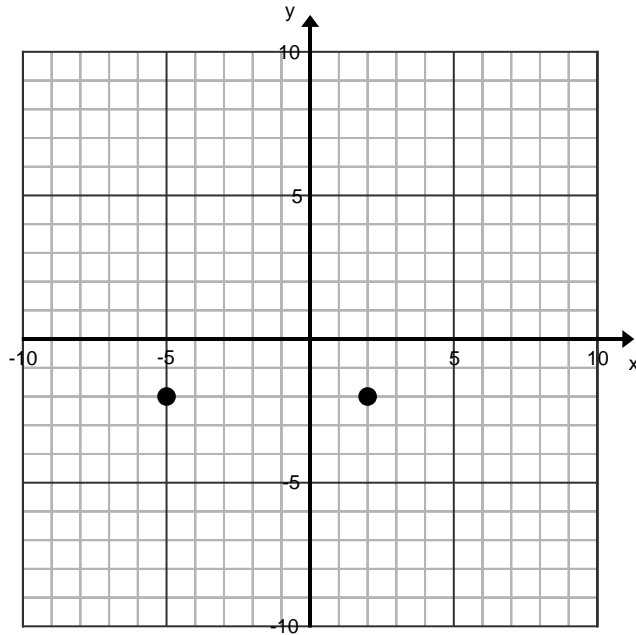
17. Graph rectangle *BCDE* with vertices *B*(−6, 4), *C*(5, 4), *D*(4 , −1) and *E*(−6, −1).
    Find the perimeter of rectangle *BCDE* .

18. Any number and its opposite will always combine to equal _____.

19. The locations of two vertices of a rectangle are shown on the coordinate plane below.

Find two ordered pairs that could describe the locations of the two missing vertices of the rectangle.

20. We say negative numbers are less than positive numbers. Does this mean that the absolute value of a negative number must be less that the absolute value of a positive number? Explain (you may use numbers in your explanation).