

5.G.A.1 Graph Integers on a Coordinate Plane – II

5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates.

1. Use the coordinate plane shown below to answer the following questions.

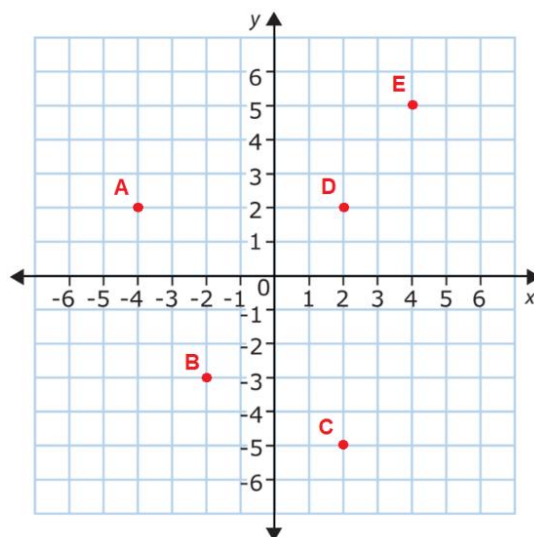
- Write the coordinate of the points A and B.

- Write the difference between the x coordinates of point A and point D.

- How many units should be added to the y coordinate of point B so that point B and point D will have the same y coordinates?

- Which of the points shown is closest to the origin?

- How many points lie in the second quadrant? _____



- Which of the following points lie on the x-axis? _____
 a. (3, -4) b. (3, 5) c. (5, 0) d. None of these
- Which of the following points lie on the y-axis? _____
 a. (0, -4) b. (2, 1) c. (1, 0) d. None of these
- Which of the following points lie on both the x-axis and the y-axis? _____
 a. (-2, -1) b. (1, 1) c. (0, 0) d. (0, 3)
- Explain why order in the pair is important when graphing an ordered pair on a coordinate plane.

Solution:

- Use the coordinate plane shown in question 1 to plot the following points. Then identify the quadrant in which each of these points lie.
 - (2, 2) quadrant: _____
 - (2, 8) quadrant: _____
 - (3, 3) quadrant: _____
 - (-3, -4) quadrant: _____

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Answer Key

5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates.

1. Use the coordinate plane shown below to answer the following questions.

a. Write the coordinate of the points A and B.

A(-4, 2) and B(-2, -3)

b. Write the difference between the x coordinates of point A and point D.

6 units

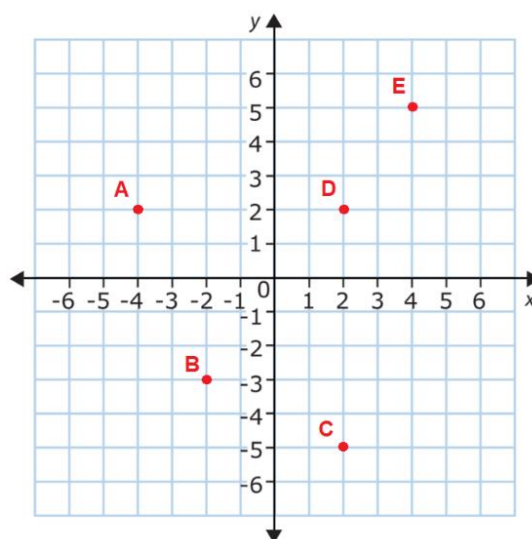
c. How many units should be added to the y coordinate of point B so that point B and point D will have the same y coordinates?

5 units

d. Which of the points shown is closest to the origin?

point D

e. How many points lie in the second quadrant? one



2. Which of the following points lie on the x-axis? c

a. (3, -4) b. (3, 5) c. (5, 0) d. None of these

3. Which of the following points lie on the y-axis? a

a. (0, -4) b. (2, 1) c. (1, 0) d. None of these

4. Which of the following points lie on both the x-axis and the y-axis? c

a. (-2, -1) b. (1, 1) c. (0, 0) d. (0, 3)

5. Explain why order in the pair is important when graphing an ordered pair on a coordinate plane.

Solution: Order is important in graphing points because the first number in the ordered pair always indicates the distance from the origin vertically (or x-axis) and the second number is the distance from the origin horizontally (or y-axis).

6. Use the coordinate plane shown in question 1 to plot the following points. Then identify the quadrant in which each of these points lie.

a. (2, 2) quadrant: 1

b. (2, 8) quadrant: 1

c. (3, 3) quadrant: 1

d. (-3, -4) quadrant: 3