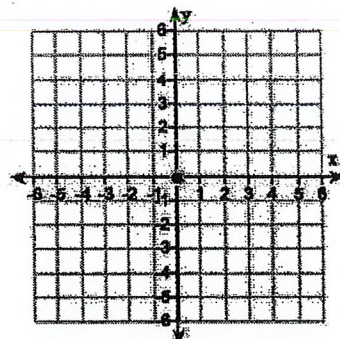


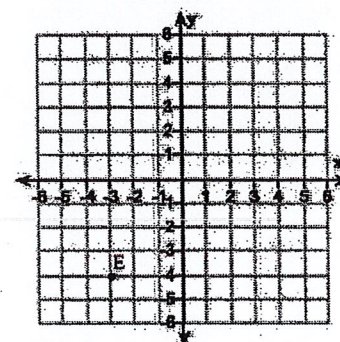
# Practice 8-4

## Integers and the Coordinate Plane

1. Plot the point  $(-2, 1)$  on the coordinate plane.



2. Find the coordinates of point E.

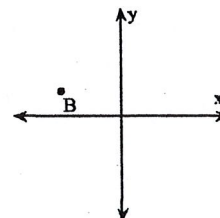


3. In which quadrant is the point  $(3, 1)$  located?

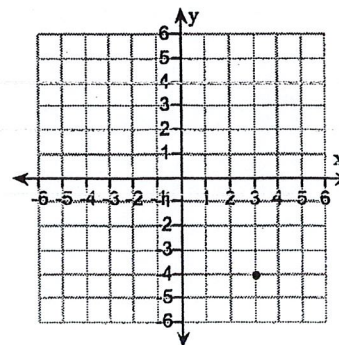
- ☐ A. Quadrant I  
☐ B. Quadrant II  
☐ C. Quadrant III  
☐ D. Quadrant IV  
☐ E. The point is not in a quadrant.

4. What ordered pair could be the coordinates of point B?

- ☐ A.  $(2, 3)$   
☐ B.  $(-3, -3)$   
☐ C.  $(4, -5)$   
☐ D.  $(-5, 2)$

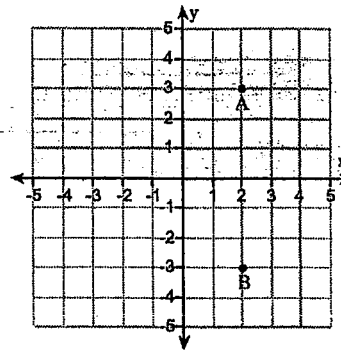


5. What is the reflection of the point  $(3, -4)$  across the x-axis?

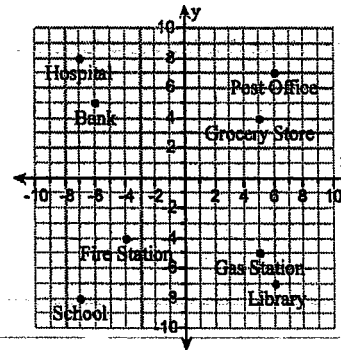




6. The coordinate plane shows a point and its reflection. What is the relationship between point A and point B?



7. **Map Coordinates** The coordinate plane shows certain locations in a town. Find the coordinates of the hospital.



8. **Writing** Suppose you have to find the quadrant in which the point  $(-5, y)$  is located.

- Describe how you can find the quadrant given only that  $y > 0$ .
- In which quadrant is the point  $(-5, y)$  located?

9. a) Find a point that is not in any quadrant.

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| <input type="radio"/> A. $(-3, -8)$ | <input type="radio"/> D. $(-8, 0)$ |
| <input type="radio"/> B. $(6, 6)$   | <input type="radio"/> E. $(-8, 8)$ |
| <input type="radio"/> C. $(5, -3)$  |                                    |

- b) **Open-Ended List** at least 5 more points that are not in any quadrant.  
Explain what all the points have in common.

10. **Error Analysis** Aaron says the reflection of the point  $(-5, -8)$  across the x-axis is  $(5, -8)$ . Leah says it is  $(-5, 8)$ .

- a) Who is correct?

- |                                |                               |
|--------------------------------|-------------------------------|
| <input type="radio"/> A. Aaron | <input type="radio"/> B. Leah |
|--------------------------------|-------------------------------|

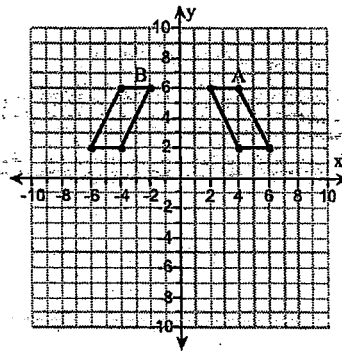
- b) What was the other student's error?

- |   |
|---|
| <input type="radio"/> A. The student reflected the point across both the y-axis and the x-axis.   |
| <input type="radio"/> B. The student switched the x- and y-coordinates.                           |
| <input type="radio"/> C. The student reflected the point across the y-axis instead of the x-axis. |

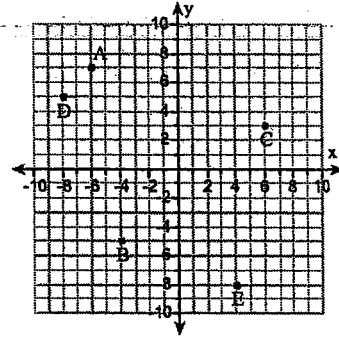


11. Reasoning The coordinate plane shows figures formed from connecting four points.

How could you reflect the points in figure A to get figure B?



12. Find the coordinates of point A.



13. What ordered pair could be the coordinates of point B?

Explain your answer.

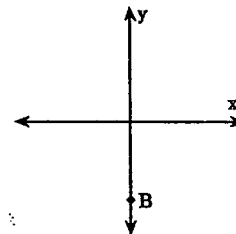
☐ A. (22, 12)

☐ D. (15, -43)

☐ B. (0, -45)

☐ E. (-12, 46)

☐ C. (-21, -36)



14. Think About the Process To plot the point (7,2) on the coordinate plane, start at the origin, (0,0). What are the next steps?

Select the correct choice below and fill in the answer boxes to complete your choice.

☐ A. Move \_\_\_ unit(s) to the left and \_\_\_ unit(s) up.

☐ B. Move \_\_\_ unit(s) to the left and \_\_\_ unit(s) down.

☐ C. Move \_\_\_ unit(s) to the right and \_\_\_ unit(s) down.

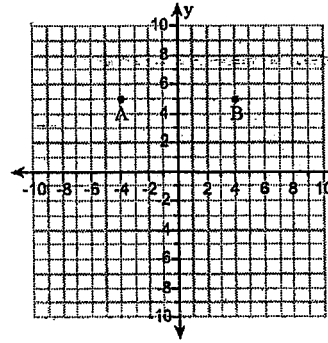
☐ D. Move \_\_\_ unit(s) to the right and \_\_\_ unit(s) up.



**15. Think About the Process** The coordinate plane shows a point and its reflection.

a) How do the coordinates of points A and B compare?

- ☐ A. The y-coordinates are the same.  
The x-coordinates are opposites.
- ☐ B. The x-coordinates and the y-coordinates are switched.
- ☐ C. The x-coordinates are the same.  
The y-coordinates are opposites.
- ☐ D. The x-coordinates are opposites. The y-coordinates are opposites.



b) Point B is the reflection of point A across which axis?

