Section 8.1 Focus Exercises

1. Determine if the given ordered pair is a solution to the equation $2x - 5y = 10$.

a) (10, 2) b) (- 5, 0) c) (0, - 2)

2. Determine if the given ordered pair is a solution to the equation $y = \frac{3}{2}x - 4$.

a) (6, 0) b) (2, - 1) c) (0, - 4)

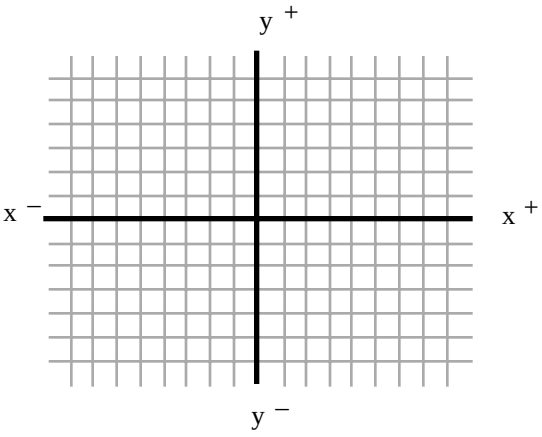
3. Plot each of these points in the x-y-plane provided. **Be sure to label each one with its ordered pair.**

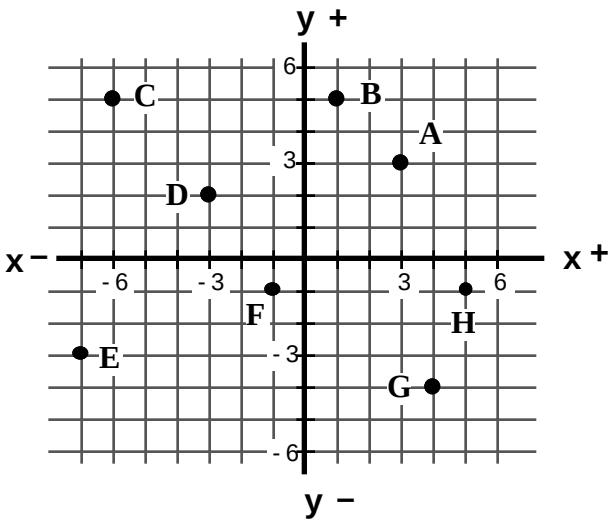
a) (5, 4)

b) (-3, 1)

c) (2, -5)

d) (-1, -4)





4. Given the graph at the right, identify the ordered pair of each point shown.

a) A (,) b) B (,)

c) C (,) d) D (,)

e) E (,) f) F (,)

g) G (,) h) H (,)

5. Determine in which quadrant each point lies. Use Example 4 as a guide.

a) (8, - 2) b) (- 2, - 2) c) (- 3, 5) d) (1, 4)

e) (- 10, -15) f) (- 8, 12) g) (1, - 20) h) (26, 34)

6. Describe where the point is located in the x-y-plane. Identify the intercept.

a) (0, 6) b) (- 5, 0) c) (3, 0)

d) (0, - 1) e) (0, 0)

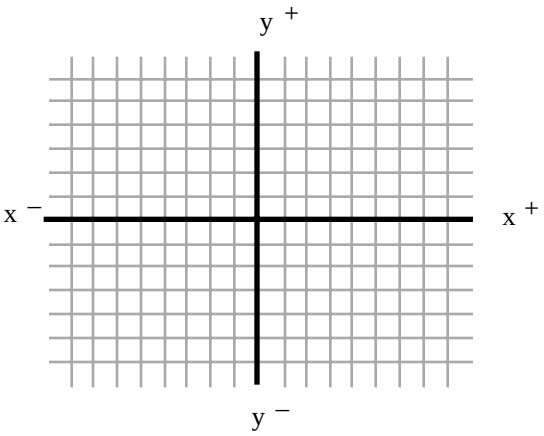
7. Plot each of these points in the x-y-plane provided.
Be sure to label each one with its ordered pair.

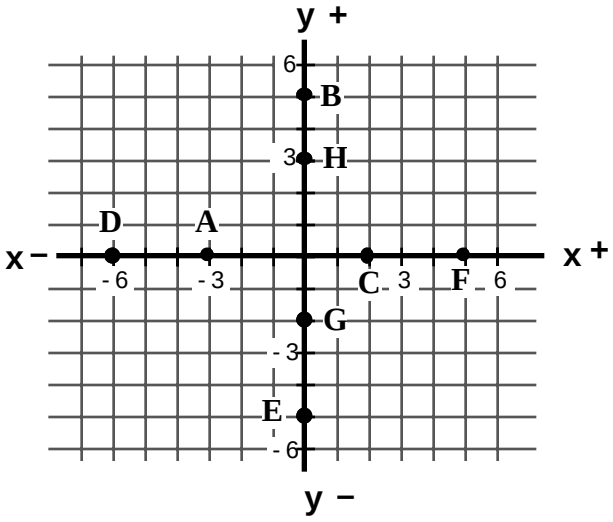
a) (0, - 6)

b) (-3, 0)

c) (2, 0)

d) (0, 4)





8. Given the graph at the right, identify the ordered pair of each point shown.

a) A (,) b) B (,)

c) C (,) d) D (,)

e) E (,) f) F (,)

g) G (,) h) H (,)

9. Plot the given point and then follow the directions to find *one* other point. Use example 7 as a guide.

a) The first point is (1, 6). Find another point by moving (counting) *down* 5 spaces and to the *left* 7 spaces. Plot and label this new point.

New point: (,)

b) The first point is (- 2, - 4). Find another point by moving (counting) *down* 2 spaces and to the *right* 6 spaces. Plot and label this new point.

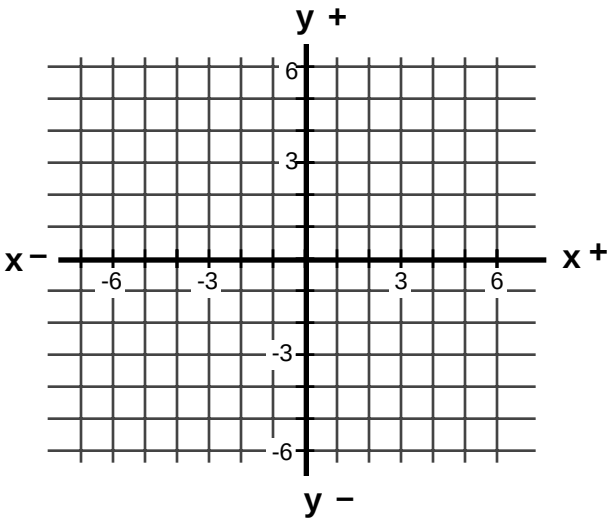
New point: (,)

c) The first point is (0, 3). Find another point by moving (counting) *down* 3 spaces and to the *left* 2 spaces. Plot and label this new point.

New point: (,)

d) The first point is (5, - 4). Find another point by moving (counting) *up* 2 spaces but don't move left or right. Plot and label this new point.

New point: (,)



For (a), (b), (c) and (d).

e) The first point is (4, 0). Find another point by moving (counting) *up* 5 spaces and to the *left* 3 spaces. Plot and label this new point.

New point: (,)

f) The first point is (- 3, 1). Find another point by moving (counting) *up* 1 spaces and to the *left* 3 spaces. Plot and label this new point.

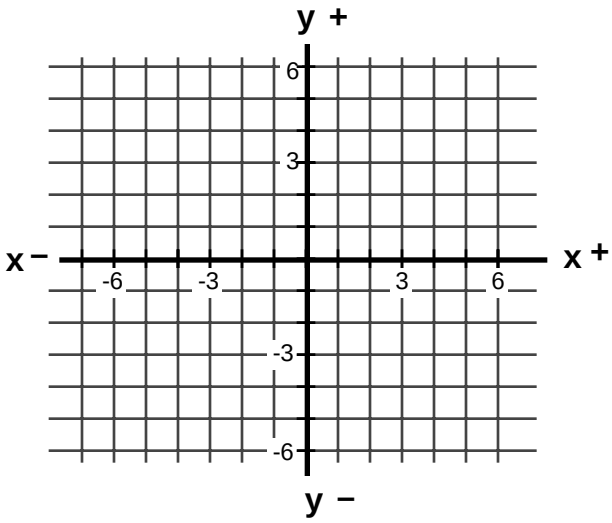
New point: (,)

g) The first point is (- 6, - 5). Find another point by moving (counting) *up* 2 spaces and to the *right* 6 spaces. Plot and label this new point.

New point: (,)

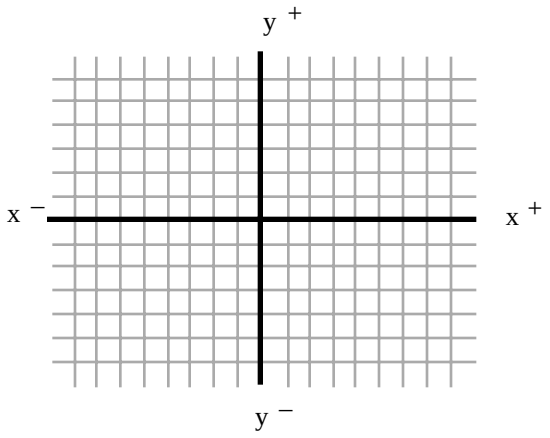
h) The first point is (6, -6). Find another point by moving (counting) *left* 4 spaces but don't move up or down. Plot and label this new point.

New point: (,)

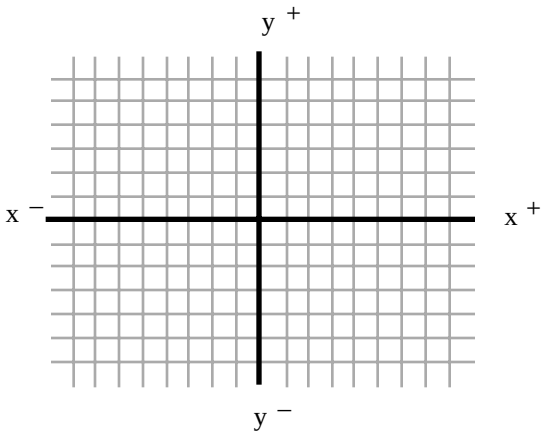


For (e), (f), (g) and (h).

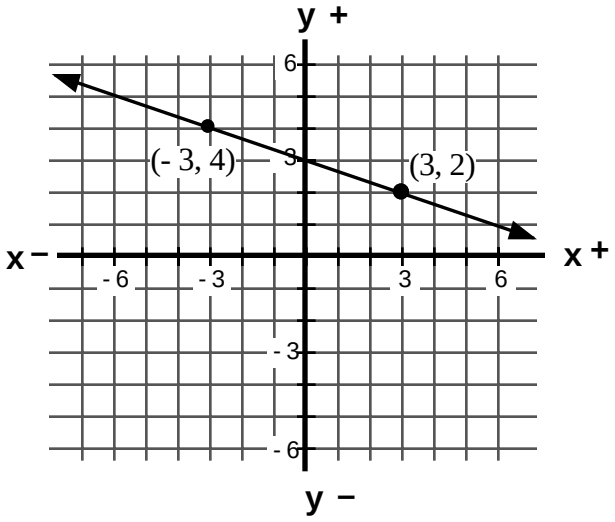
10. The line equation $y = \frac{2}{3}x - 1$ passes through the points (-3, -3), (0, -1) and (3, 1). Plot these points in the x-y plane and draw the line that passes through them.



11. The line equation $y = -2x + 3$ passes through the points (-2, 7), (0, 3) and (2, -1). Plot these points in the x-y plane and draw the line that passes through them.



12. The line equation $y = \frac{-1}{3}x + 3$ passes through the points (-3, 4) and (3, 2). Identify *three* other points that *appear* to be on the line.



13. The line equation $2x - y = 3$ passes through the points (-1, -5) and (2, 1). Identify *four* other points that *appear* to be on the line.