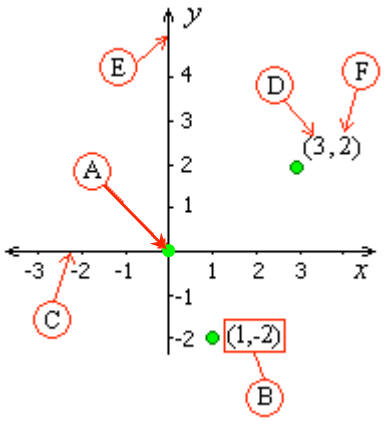
3.1 Plotting Points

Solutions

Match the items below with the appropriate letter in the diagram below



1. x – axis _____C_____

2. y – axis _____

3. x – coordinate _____D_____

4. y – coordinate _____

5. ordered pair _____B_____

6. origin _____

Fill in the blank to complete each statement.

7. The point of intersection of the x-axis and the y-axis is called the

_____origin_____.

8. A pair of numbers enclosed in parentheses used to describe a point on a coordinate plane is called an

_____ _____.

9. The vertical number line of a coordinate plane is called the

_____y-axis_____.

10. The horizontal number line of a coordinate plane is called the

_____.

11. The coordinate plane is divided by the x-axis and the y-axis into four

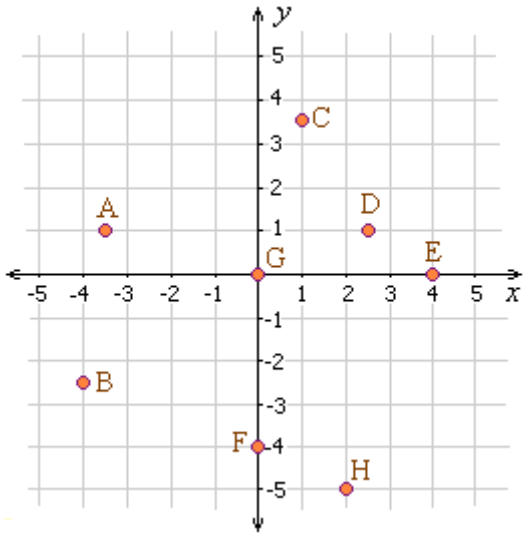
_____quadrants_____.

12. If a point does not lie in one of the quadrants, then it lies on one of the

_____.

Answers: **1.** C; **3.** D; **5.** B; **7.** origin; **9.** y-axis; **11.** quadrants

Write the ordered pair associated with each lettered point in the coordinate plane shown.



13. A _____(–3.5, 1)_____	**14.** E _____
15. B _____(–4, –2.5)_____	**16.** F _____
17. C _____(1, 3.5)_____	**18.** G _____
19. D _____(2.5, 1)_____	**20.** H _____

Name the quadrant or axis in which each point lies.

21. A _____II_____	**22.** E _____
23. B _____III_____	**24.** F _____
25. C _____I_____	**26.** G _____
27. D _____I_____	**28.** H _____

Answer: **13.** (–3.5, 1); **15.** (–4, –2.5); **17.** (1, 3.5); **19.** (2.5, 1); **21.** II; **23.** III; **25.** I; **27.** I

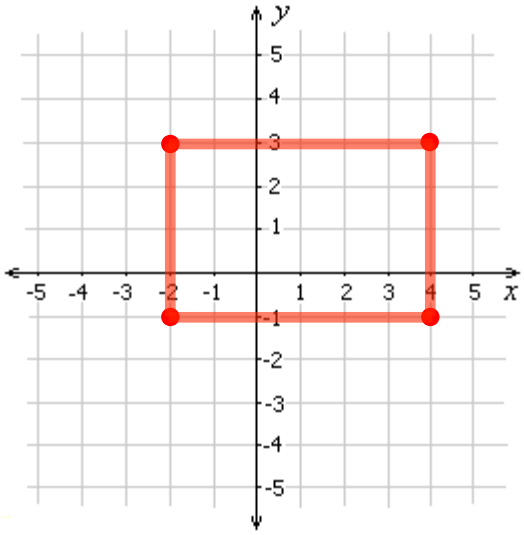
Plot the four points given below. Then, using the four points as corners of a rectangle, draw the rectangle.

(–2, 3)

(4, 3)

(–2, –1)

(4, –1)



29. Recalling that the perimeter of a geometric figure is the distance around the outside of the figure, calculate the perimeter of the rectangle you drew above.

Perimeter = 4 + 6 + 4 + 6 = 20

30. Recalling that the area of a geometric figure is the number of square units needed to cover the figure exactly, calculate the area of the rectangle you drew above.

Answer: **29.** 20