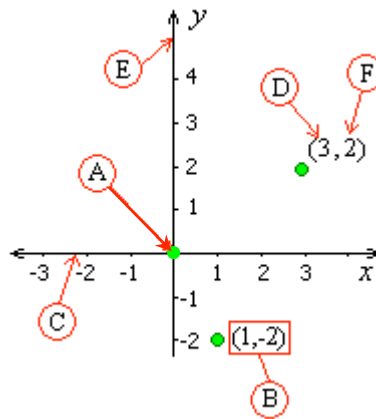


3.1 Plotting Points

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

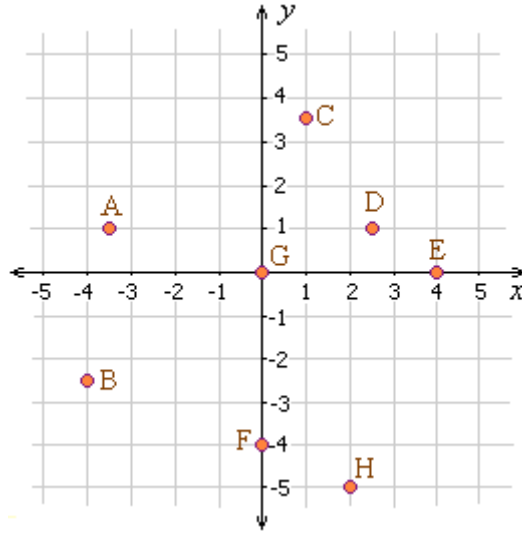
_____ **quadrants** _____.

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

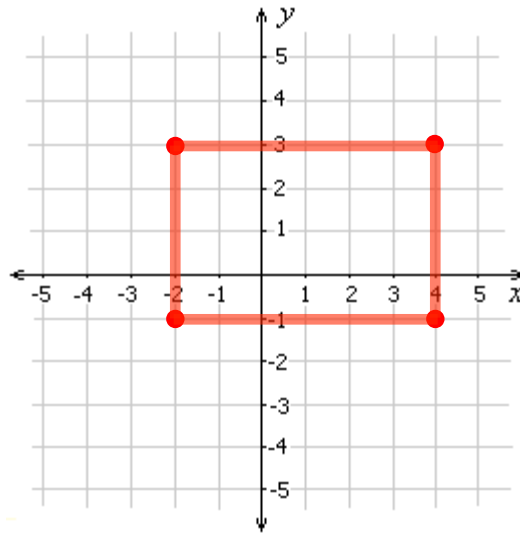
Plot the four points given below. Then, using the four points as corners of a rectangle, draw the rectangle.

$(-2, 3)$

$(4, 3)$

$(-2, -1)$

$(4, -1)$



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.

$$\text{Perimeter} = 4 + 6 + 4 + 6 = 20$$

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