

CLASS IX : CHAPTER - 3
COORDINATE GEOMETRY

- 1.** Point $(-3, -2)$ lies in the quadrant:
(a) I (b) II (c) III (d) IV

 - 2.** Point $(5, -4)$ lies in the quadrant:
(a) I (b) II (c) III (d) IV

 - 3.** Point $(1, 7)$ lies in the quadrant:
(a) I (b) II (c) III (d) IV

 - 4.** Point $(-6, 4)$ lies in the quadrant:
(a) I (b) II (c) III (d) IV

 - 5.** The point $(-4, -3)$ means:
(a) $x = -4, y = -3$ (b) $x = -3, y = -4$ (c) $x = 4, y = 3$ (d) None of these

 - 6.** Point $(0, 4)$ lies on the:
(a) I quadrant (b) II quadrant (c) x – axis (d) y – axis

 - 7.** Point $(5, 0)$ lies on the:
(a) I quadrant (b) II quadrant (c) x – axis (d) y – axis

 - 8.** On joining points $(0, 0), (0, 2), (2, 2)$ and $(2, 0)$ we obtain a:
(a) Square (b) Rectangle (c) Rhombus (d) Parallelogram

 - 9.** Point $(-2, 3)$ lies in the:
(a) I quadrant (b) II quadrant (c) III quadrant (d) IV quadrant

 - 10.** Point $(0, -2)$ lies:
(a) on the x -axis (b) in the II quadrant (c) on the y -axis (d) in the IV quadrant

 - 11.** Signs of the abscissa and ordinate of a point in the first quadrant are respectively:
(a) $+, +$ (b) $-, +$ (c) $+, -$ (d) $-, -$

 - 12.** Signs of the abscissa and ordinate of a point in the second quadrant are respectively:
(a) $+, +$ (b) $-, +$ (c) $+, -$ (d) $-, -$

 - 13.** Signs of the abscissa and ordinate of a point in the third quadrant are respectively:
(a) $+, +$ (b) $-, +$ (c) $+, -$ (d) $-, -$

 - 14.** Signs of the abscissa and ordinate of a point in the fourth quadrant are respectively:
(a) $+, +$ (b) $-, +$ (c) $+, -$ (d) $-, -$

 - 15.** Point $(-1, 0)$ lies in the:
(a) on the negative direction of x – axis (b) on the negative direction of y – axis
(c) in the III quadrant (d) in the IV quadrant
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(a) $+, +$ (b) $-, +$ (c) $+, -$ (d) $-,-$

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(a) $+, +$ (b) $-, +$ (c) $+, -$ (d) $-,-$

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(a) on the negative direction of x – axis (b) on the negative direction of y – axis
(c) in the III quadrant (d) in the IV quadrant

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COORDINATE GEOMETRY

CLASS IX : CHAPTER - 3 **COORDINATE GEOMETRY**

1. The point $(-2, -5)$ lies in the
 (a) I quadrant (b) II quadrant (c) III quadrant (d) IV quadrant

2. The sign of x-coordinate of a point lying in third quadrant is
 (a) + (b) - (c) \pm (d) IV quadrant

3. The signs of respective x-coordinate and y-coordinates of a point lying 2nd quadrant are
 (a) $-$, + (b) $-$, $-$ (c) $+$, $-$ (d) $+$, $+$

4. The point $(0, 4)$ lies on
 (a) I quadrant (b) negative x – axis (c) positive x – axis (d) y – axis

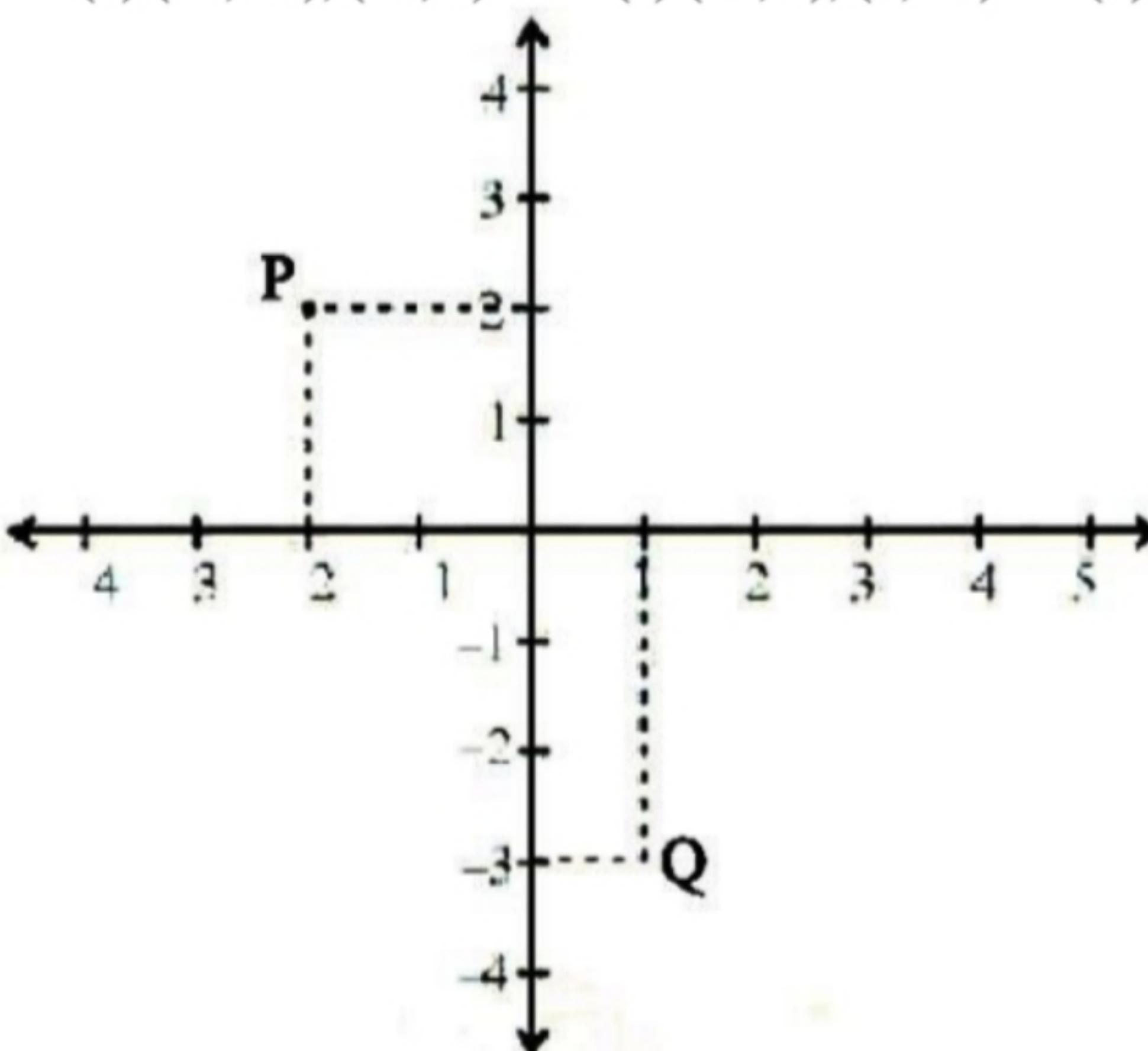
5. The y-coordinate of any point lying on x-axis is
 (a) 0 (b) 1 (c) -1 (d) any number

6. The point where the two axes meet, is called
 (a) x-coordinate (b) y- coordinate (c) quadrant (d) origin

7. The point $(-5, 4)$ and $(4, -5)$ are situated in
 (a) same quadrant (b) I and III quadrant, respectively
 (c) Different quadrants (d) IV and II quadrant, respectively

8. The figure obtained by plotting the points $(2, 3), (-2, 3), (-2, -3)$ and $(2, -3)$ is a
 (a) trapezium (b) rectangle (c) square (d) rhombus

9. In the given figure, on the sides the respective coordinates of points P and Q respectively are:
 (a) $(-2, -2), (1, 3)$ (b) $(-2, -2), (-1, 3)$ (c) $(-2, 2), (1, -3)$ (d) $(-2, 2), (1, 3)$



10. The point $(0, -3)$ lies on

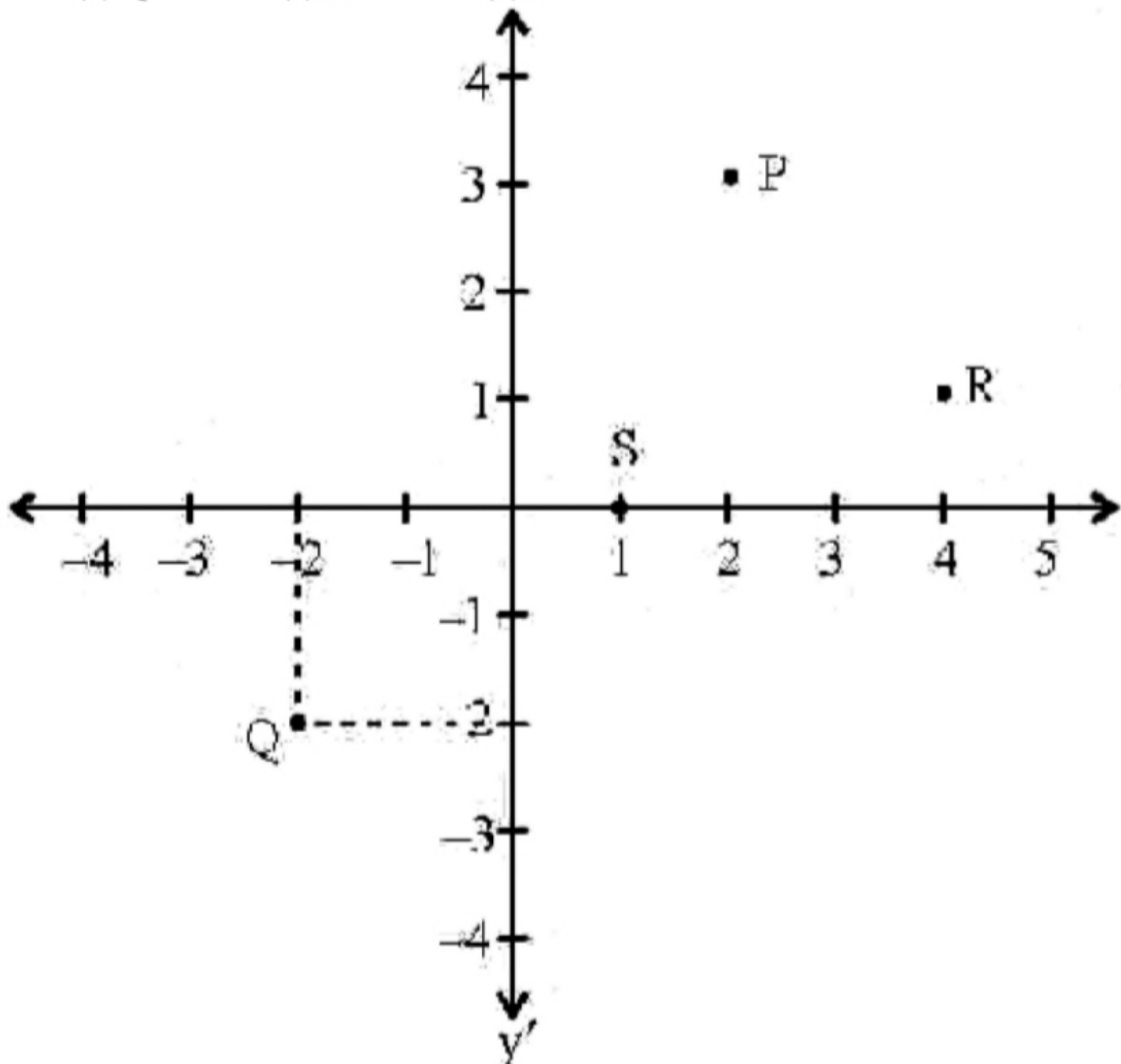
- (a) negative side of y -axis (b) negative side of x -axis
(c) positive side of x -axis (d) positive side of y -axis

11. If the coordinates of two points P and Q are $(2, -3)$ and $(-6, 5)$, then the value of $(x\text{-coordinate of } P) - (x\text{-coordinate of } Q)$ is

- (a) 2 (b) -6 (c) -8 (d) 8

12. The point whose y -coordinate is 3 in the given figure is

- (a) P (b) Q (c) R (d) S



13. The coordinates of the point lying on the negative side of x -axis at a distance of 5 units from origin are

- (a) $(0, 5)$ (b) $(0, -5)$ (c) $(-5, 0)$ (d) $(5, 0)$

14. The distance of the $(4, -3)$ from x -axis is

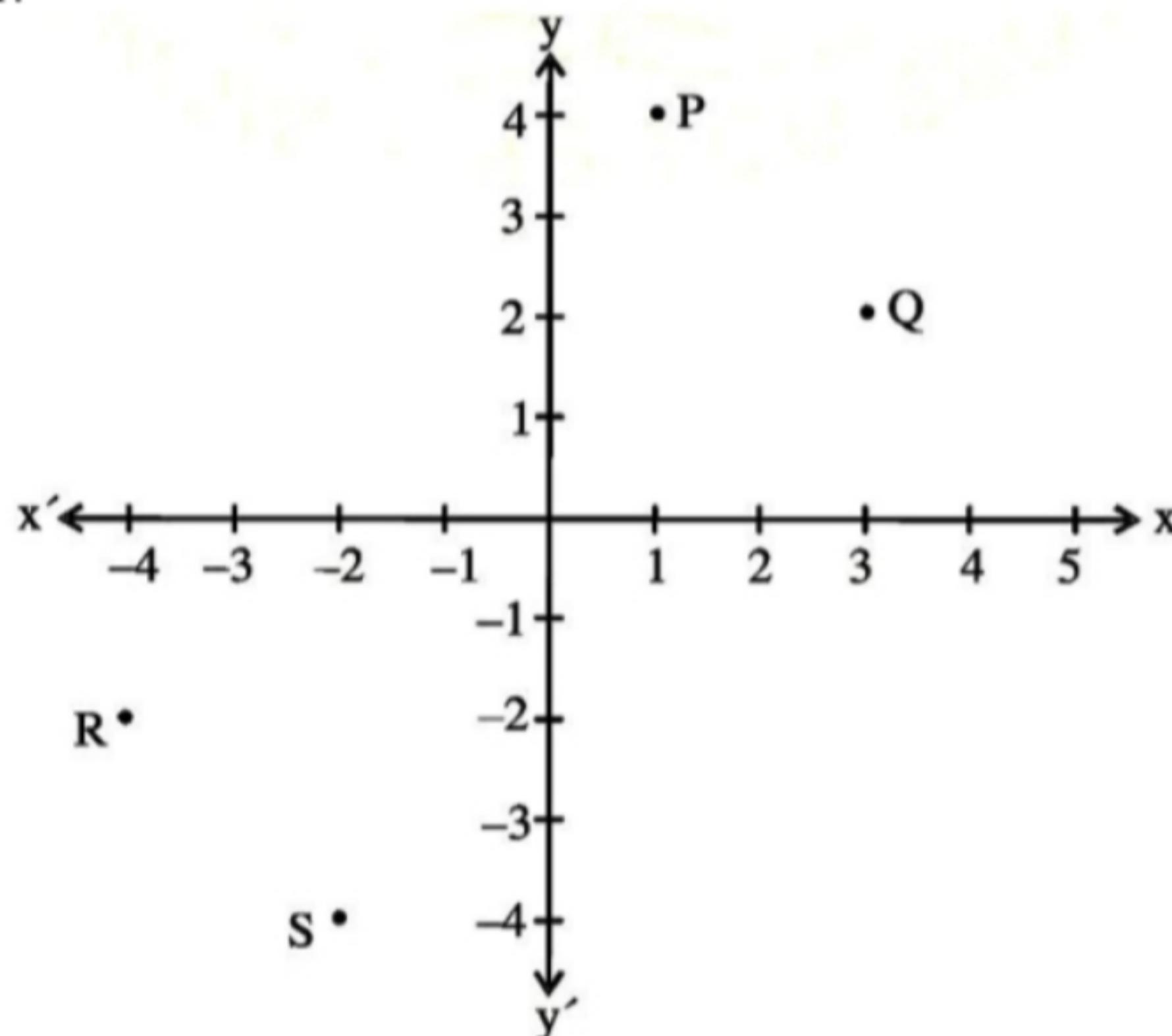
- (a) 3 units (b) -3 units (c) 4 units (d) 5 units

15. The origin lies on

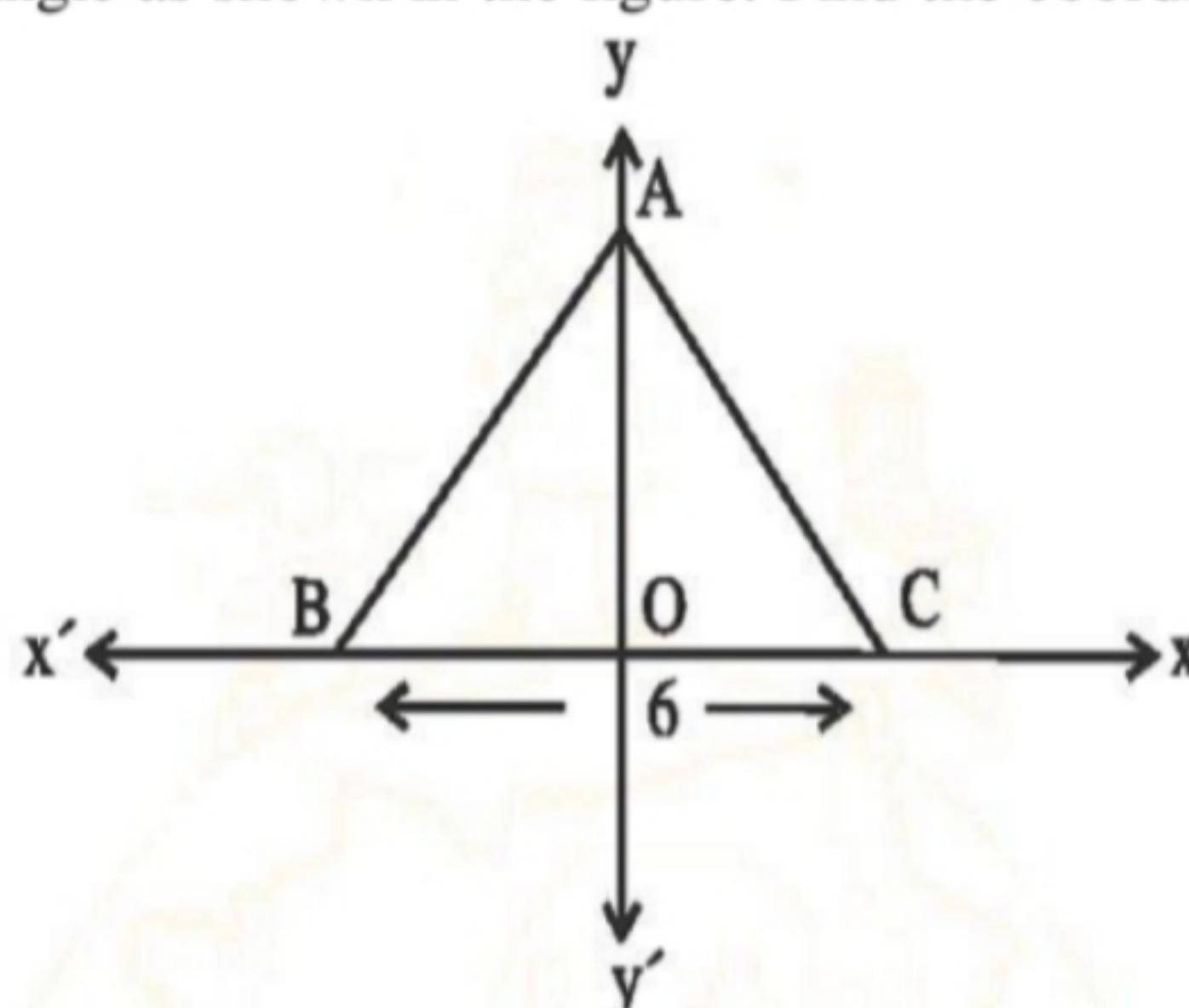
- (a) x -axis only (b) both axes (c) y -axis only (d) none of the axes

PRACTICE QUESTIONS
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- Which of the following points lie in I and II quadrants?
 (1, 1), (2, -3), (-2, 3), (-1, 1), (-3, -2), (4, 3)
- Which of the following points lie on (a) x-axis (b) y-axis?
 (5, 1), (8, 0), (0, 4), (-3, 0), (0, -3), (0, 5), (0, 0)
- If the x-coordinate of a point is negative, it can lie in which quadrants?
- From the figure, write the coordinates of the point P, Q, R and S. Does the line joining P and Q pass through origin?



- Write the coordinates of the following points:
 - lying on both axes
 - lying on x-axis and with x-coordinate 4
 - lying on y-axis with y-coordinate -3.
- The coordinates of the three vertices of a rectangle ABCD are A(3, 2), B(-4, 2), C(-4, 5). Plot these points and write the coordinates of D.
- ABC is an equilateral triangle as shown in the figure. Find the coordinates of its vertices.



8. Plot the following points on a graph paper:

x	1	2	3	4	5
y	5	8	11	14	17

Join these points. What do you observe?

9. What is the name of horizontal and the vertical lines drawn to determine the position of any point in the Cartesian plane?

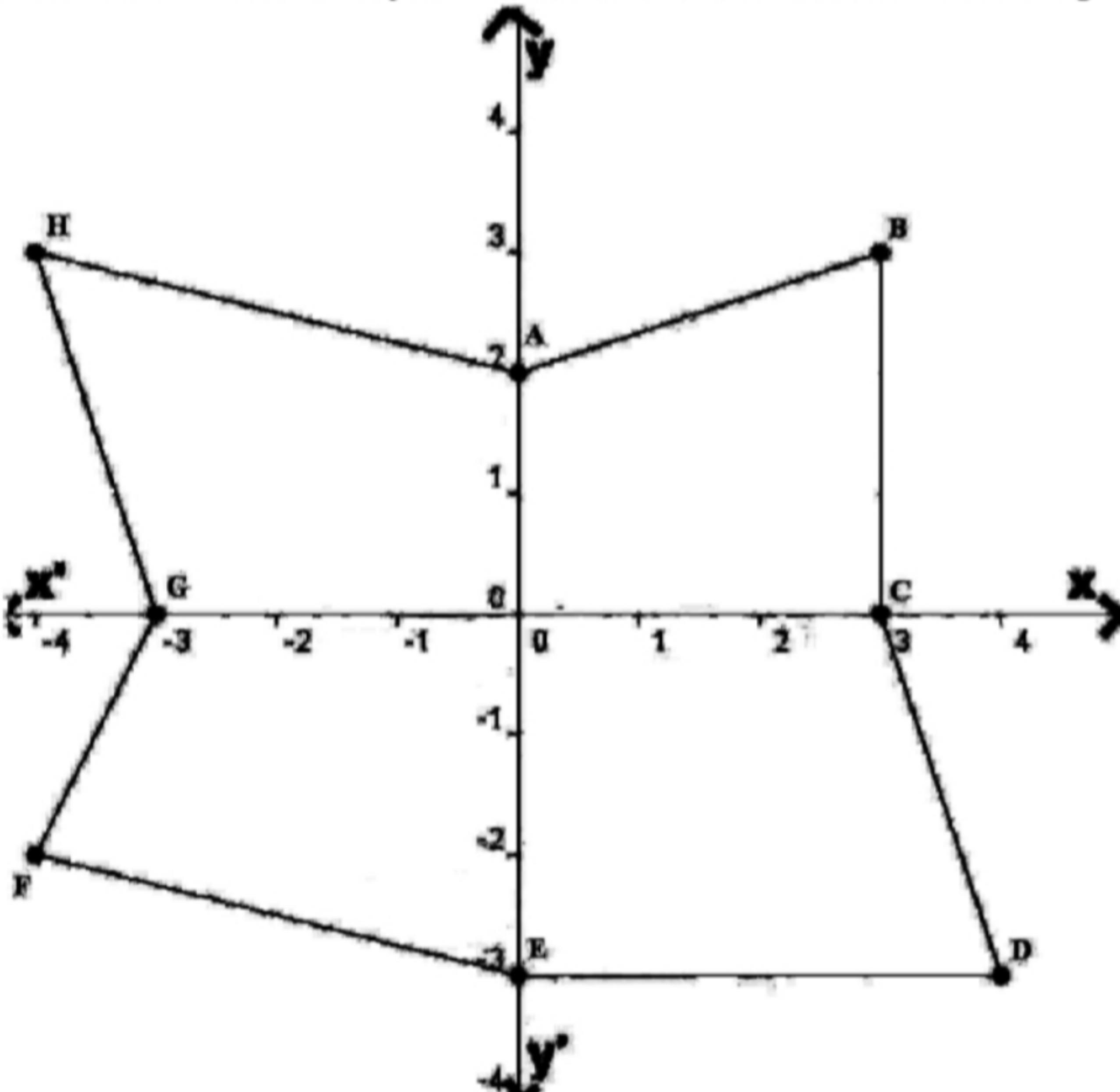
10. What is the name of each part of the plane formed by these two lines?

11. Write the name of the point where these two lines intersect.

12. Locate the points $(5, 0)$, $(0, 5)$, $(2, 5)$, $(5, 2)$, $(-3, 5)$, $(-3, -5)$, $(5, -3)$ and $(6, 1)$ in the Cartesian plane.

13. Draw the line passing through $(2, 3)$ and $(3, 2)$. Find the coordinates of the points at which this line meets the x -axis and y -axis.

14. Locate the coordinates of labelled points A, B, C, D, E, F, G and H in the following diagram:

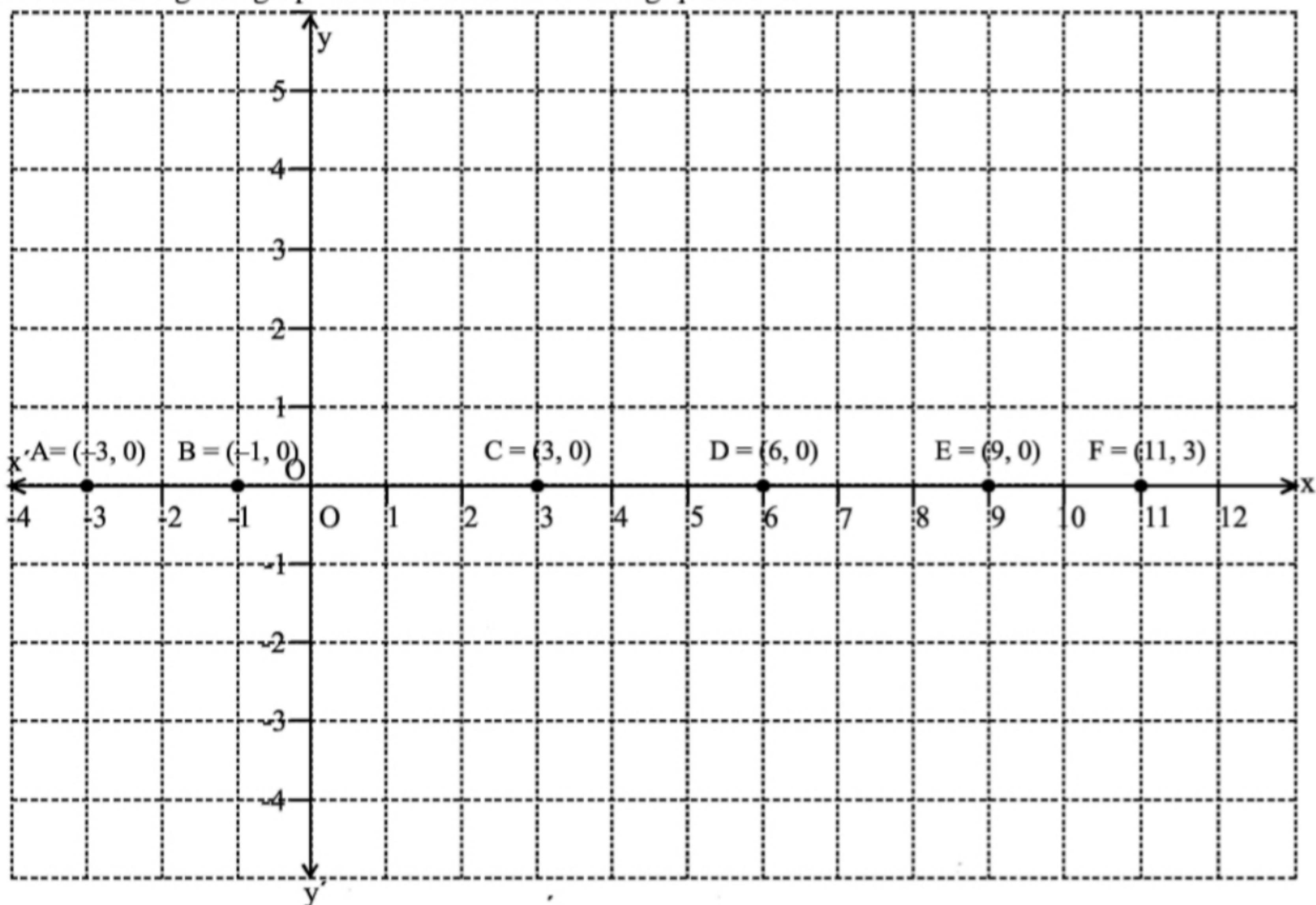


15. Plot the following ordered pairs of number (x, y) as points in the Cartesian plane. Use the scale $1\text{cm} = 1$ unit on the axes.

x	-3	0	-1	4	2
y	7	-3.5	-3	4	-3

16. In which quadrant or on which axis do each of the points $(-2, 4)$, $(3, -1)$, $(-1, 0)$, $(1, 2)$ and $(-3, -5)$ lie? Verify your answer by locating them on the Cartesian plane.

17. Read the given graph and answer the following questions:



(a) Complete the table given below

Point	Location	Coordinates	Abscissa	Ordinates
A				
B				
C				
D				
E				
F				

(b) What are the coordinates of a general point on the x-axis?

18. Plot the points (x, y) given in the following table on the plane, choosing suitable units of distance on the axes.

x	-1	2	-4	2	-3
y	0	-5	2	1	2

19. Plot the following points and verify if they lie on a line. If they lie on a line, name it.

- (i) $(0, 2), (0, 5), (0, 6), (0, 3.5)$
- (ii) $A(1, 1), B(1, 2), C(1, 3), D(1, 4)$
- (iii) $K(1, 3), L(2, 3), M(3, 3), N(4, 3)$
- (iv) $W(2, 6), X(3, 5), Y(5, 3), Z(6, 2)$

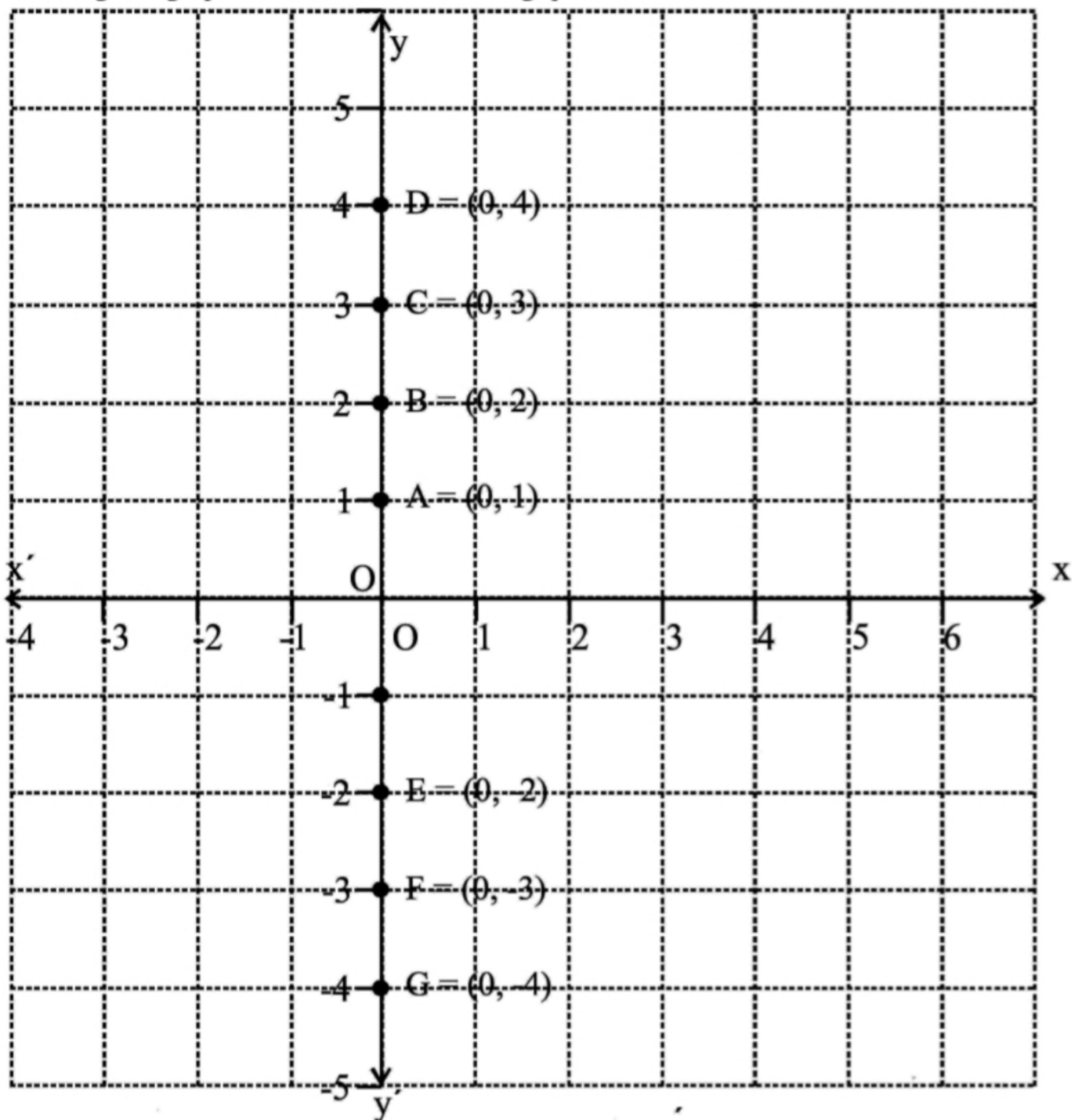
20. Plot the following points on a graph sheet. Verify if they lie on a line

- (a) $A(4, 0), B(4, 2), C(4, 6), D(4, 2.5)$
- (b) $P(1, 1), Q(2, 2), R(3, 3), S(4, 4)$
- (c) $K(2, 3), L(5, 3), M(5, 5), N(2, 5)$

21. In which quadrant or on which axis do each of the points $(5, 0), (0, 5), (2, 5), (5, 2), (-3, 5), (-3, -5), (5, -3)$ and $(6, 1)$ in the Cartesian plane.

22. Plot the points A (4, 4) and (-4, 4) on a graph sheet. Join the lines OA, OB and BA. What figure do you obtain.

23. Read the given graph and answer the following questions:



(a) Complete the table given below

Point	Location	Coordinates	Abscissa	Ordinates
A				
B				
C				
D				
E				
F				

(b) What are the coordinates of a general point on the y-axis?

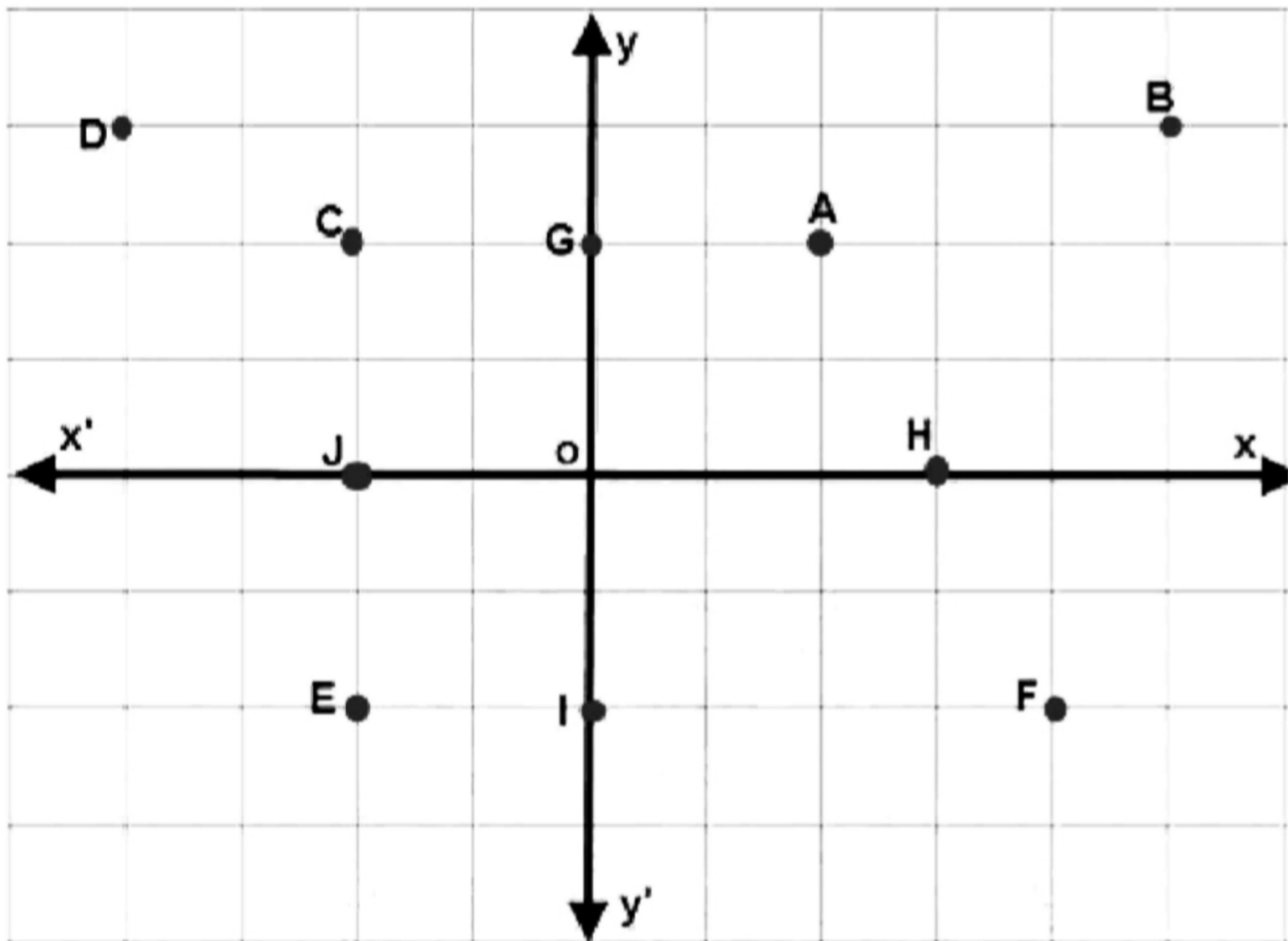
24. Plot the point P (-6, 2) and from it draw PM and PN as perpendiculars to x-axis and y-axis, respectively. Write the coordinates of the points M and N.

25. Plot the following points and write the name of the figure thus obtained : P(-3, 2), Q (-7, -3), R (6, -3), S (2, 2)

26. Plot the following points and check whether they are collinear or not :

- (i) $(1, 3), (-1, -1), (-2, -3)$
- (ii) $(1, 1), (2, -3), (-1, -2)$
- (iii) $(0, 0), (2, 2), (5, 5)$

27. Locate the position of marked points.



28. Complete the following table by putting a tick or a cross for the given points and their location.

Point	I quadrant	II quadrant	III quadrant	IV quadrant	x-axis	y-axis
$(0, 0)$						
$(1, 2)$						
$(1, -2)$						
$(-2, 1)$						
$(-1, -2)$						
$(0, -2)$						
$(-2, 0)$						
$(7, 9)$						

29. Plot the points (x, y) given by the following table:

x	2	4	-3	-2	3	0
y	4	2	0	5	-3	0

30. Without plotting the points indicate the quadrant in which they will lie, if

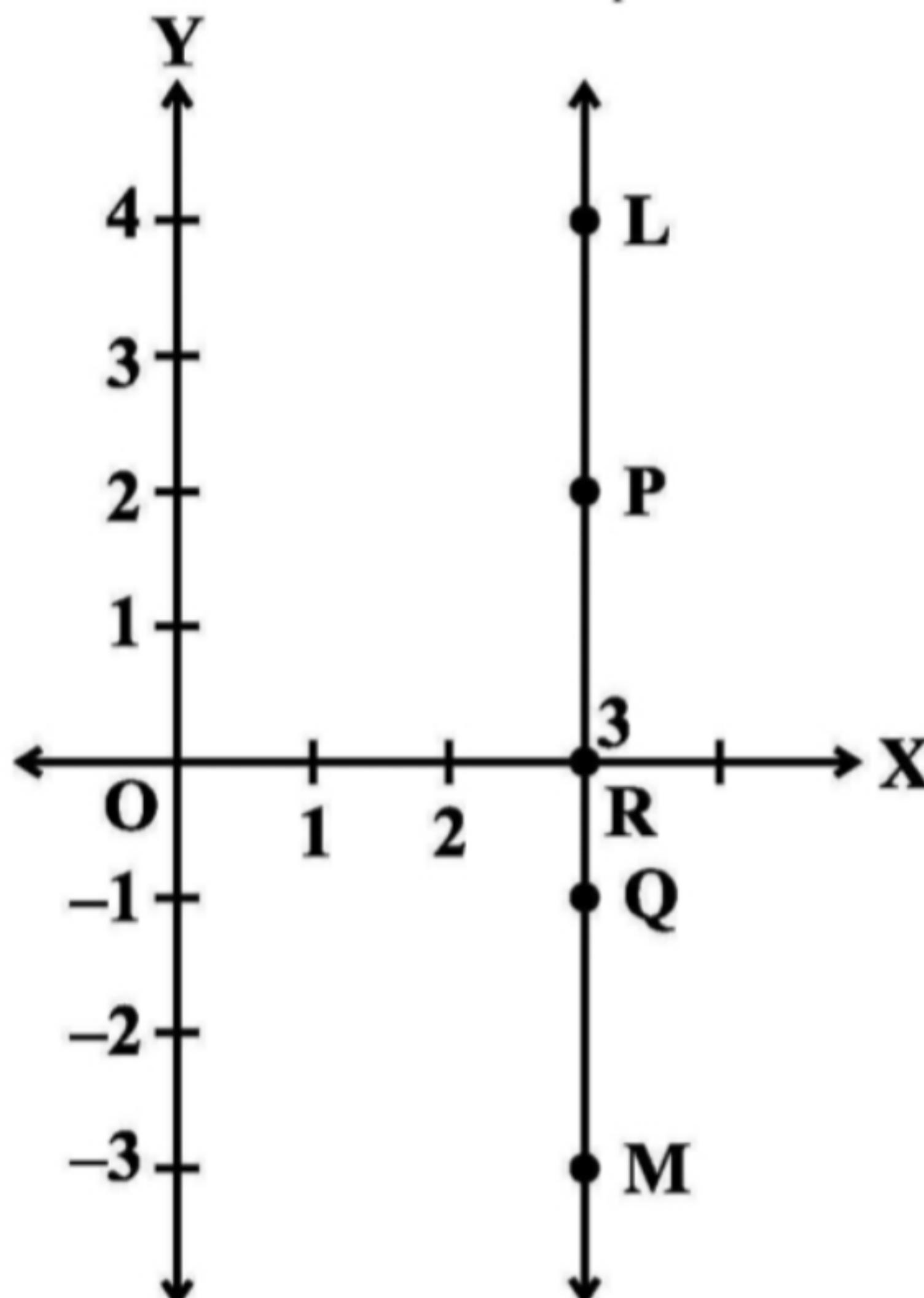
- (i) ordinate is 5 and abscissa is -3
- (ii) abscissa is -5 and ordinate is -3
- (iii) abscissa is -5 and ordinate is 3
- (iv) ordinate is 5 and abscissa is 3

31. In which quadrant or on which axis each of the following points lie?

- $(-3, 5)$, $(4, -1)$, $(2, 0)$, $(2, 2)$, $(-3, -6)$

32. In the below Figure, LM is a line parallel to the y -axis at a distance of 3 units.

- (i) What are the coordinates of the points P, R and Q?
- (ii) What is the difference between the abscissa of the points L and M?



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

- A $(1, 1)$, B $(1, 0)$, C $(0, 1)$, D $(0, 0)$, E $(0, -1)$, F $(-1, 0)$, G $(0, 5)$, H $(-7, 0)$, I $(3, 3)$.

34. Plot the points (x, y) given by the following table. Use scale $1 \text{ cm} = 0.25 \text{ units}$

x	1.25	0.25	1.5	-1.75
y	-0.5	1	1.5	-0.25

35. A point lies on the x -axis at a distance of 7 units from the y -axis. What are its coordinates? What will be the coordinates if it lies on y -axis at a distance of -7 units from x -axis?

36. Find the coordinates of the point

- (i) which lies on x and y axes both.
- (ii) whose ordinate is -4 and which lies on y -axis.
- (iii) whose abscissa is 5 and which lies on x -axis.

37. Taking 0.5 cm as 1 unit, plot the following points on the graph paper : A $(1, 3)$, B $(-3, -1)$, C $(1, -4)$, D $(-2, 3)$, E $(0, -8)$, F $(1, 0)$

38. Plot the points P $(1, 0)$, Q $(4, 0)$ and S $(1, 3)$. Find the coordinates of the point R such that PQRS is a square.

- 39.** Three vertices of a rectangle are $(3, 2)$, $(-4, 2)$ and $(-4, 5)$. Plot these points and find the coordinates of the fourth vertex.
- 40.** Three vertices of a rectangle are $(4, 2)$, $(-3, 2)$ and $(-3, 7)$. Plot these points and find the coordinates of the fourth vertex.
- 41.** Points $A(5, 3)$, $B(-2, 3)$ and $D(5, -4)$ are three vertices of a square ABCD. Plot these points on a graph paper and hence find the coordinates of the vertex C.
- 42.** Write the coordinates of the vertices of a rectangle whose length and breadth are 5 and 3 units respectively, one vertex at the origin, the longer side lies on the x -axis and one of the vertices lies in the third quadrant.
- 43.** Plot the points A $(1, -1)$ and B $(4, 5)$ (i) Draw a line segment joining these points. Write the coordinates of a point on this line segment between the points A and B. (ii) Extend this line segment and write the coordinates of a point on this line which lies outside the line segment AB.
- 44.** Plot the points P $(0, -3)$, Q $(0, 3)$ and R $(6, 3)$. Find the coordinates of the point S such that PQRS is a square.

- 45.** From the below graph, answer the following : (i) Write the points whose abscissa is 0. (ii) Write the points whose ordinate is 0. (iii) Write the points whose abscissa is -5 .

