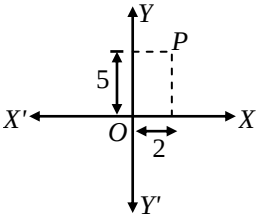
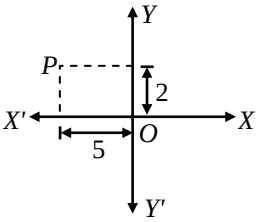
EXERCISE

A. Short Answer Type Questions

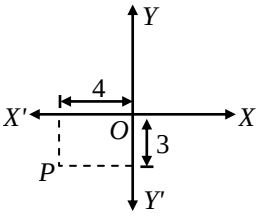
Q.l In the adjoining figure find
(i) abscissa
(ii) ordinate
(iii) co-ordinates of point P.



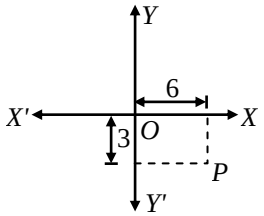
Q.2 Determine
(i) abscissa
(ii) ordinate
(iii) co-ordinate of point P in this given figure.



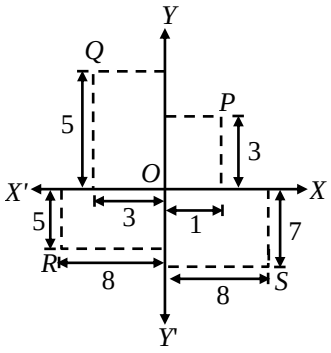
Q.3 Determine
(i) abscissa
(ii) ordinate
(iii) coordinates of point P, in the figure.



Q.4 In the given figure find
(i) abscissa
(ii) ordinate
(iii) co-ordinates of point P.



Q.5 Write down
(i) abscissa
(ii) ordinates and
(iii) co-ordinates of the points P, Q, R and S in the given figure.



Q.6 Draw X-axis and Y-axis and mark the poiont A (3, 9), B (4, – 7), C (–8, 9), D (– 3, – 5), E (4, – 2) and F (7, 5)

Q.7 Draw a trignale PQR whose vertices are P = (1, – 6), Q = (7, 4) and R = (– 4, 4).

Q.8 Draw a triangle ABC whose vertices A, B, and C are (– 3, 0), (3, 3) and (– 3, 3) respectively.

Q.9 Draw a rectangle ABCD such that its vertices A, B, C and D are (4, 3), (4, – 2), (– 7, – 2) and (– 7, 3) respectively.

Q.10 Draw a rectangle KLMN such that its vertices K, L, M, and N are (5, 0), (5, 3), (0, 3) and (0, 0) respectively.

Q.11 Construct a square ABCD such that its vertices A, B, C, and D are (1, 2,) (– 7, 2), (– 7, – 6) and (1, – 6) respectively.

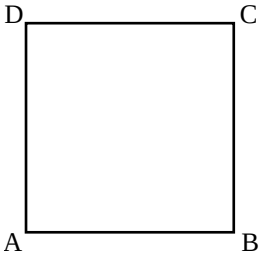
Q.12 Construct a square PQRS whose vertices P, Q, R and S are (0, 0), (– 4, 0), (– 4 , – 4) and (0, – 4) respectively

Q.13 Draw a parallelogram ABCD whose vertices A, B, C, and D are (– 4, 8), (– 4, 2), (6, – 7) and (6, – 1) respectively.

Q.14 Construct a trapezium PQRS in which vertices P, Q, R and S are (3, 0), (7, 9), (– 6, 9) and (– 2, 0) respectively.

Q.15 Draw a rhombus ABCD whose vertices A, B, C and D are (1, 4·5), (– 1, 0) (1, – 4·5) and (3, 0) respectively

Q.16 Find the co-ordinates of the vertices of the square ABCD (side 2a)



(i) Taking AB and AD as axis,
(ii) Taking the centre of the square as origin and axes parallel to the sides AB, AD.

Q.17 Show that the points (– 4, – 1), (– 2, – 4), (4, 0) and (2, 3) are the vertices points of a rectangle.

Q.18 Show that the points A (1, – 2), B (3, 6), C (5, 10) and D (3, 2) are the vertices of a parallelogram.

Q.19 Prove that the points (2, 3), (– 4, – 6) and (1, 3/2) do not form a triangle

Q.20 Without plotting the given points on a graph paper indicate the quadrants in which they lie, if
(a) ordinate = 6, abscissa = –3
(b) ordinate = –6, abscissa = 4
(c) abscissa = –5, ordinate = –7
(d) ordinate = 3, abscissa = 5

Q.21 Plot the point P(–6, 3) on a graph paper. Draw PL ⊥ x-axis and PM ⊥ y-axis. Write the coordinates of L and M.

Q.22 Plot the points A(–5, 2), B(3, –2), C(–4, –3) and D(6, 0) on a graph paper.

B. Long Answer Type Questions

Q.23 The three vertices of ΔABC are A(1, 4), B(–2, 2) and C(3, 2). Plot these points on a graph paper and calculate the area of ΔABC.

Q.24 The three vertices of a rectangle ABCD are A(2, 2), B(–3, 2) and C(–3, 5). Plot these points on a graph paper and find the coordinates of D. Also, find the area of rectangle ABCD.

Q.25 The three vertices of a square ABCD are A(3, 2), B(–2, 2) and D(3, –3). Plot these points on a graph paper and hence, find the coordinates of C. Also, find the area of square ABCD.

C. Fill in the blanks type Questions

Q.26 The horizontal & the vertical lines drawn in the Cartesian plane to determine the position of a point are respectively, the……..and the…….

Q.27 The point of intersection of the x-axis and the y-axis in the Cartesian plane is ……

Q.28 The x-axis and the y-axis divide the Cartesian plane in ……quadrants

Q.29 The abscissa of a point on the y-axis is ……...

Q.30 The ordinate of a point on the x-axis is……..

Q.31 If 'A' be point on the negative half of the x-axis such that the distance between A and the origin O is 5 units, then the coordinates of point A are ……

Q.32 If the perpendicular distance of a point P from the x-axis is 7 units along the negative direction of the y-axis then the ordinate of P is…….

ANSWER KEY

A. SHORT ANSWER TYPE QUESTIONS:

1. (i) 2 (ii) 5 (iii) (2, 5)

2. (i) –5 (ii) 2 (iii) (–5, 2)

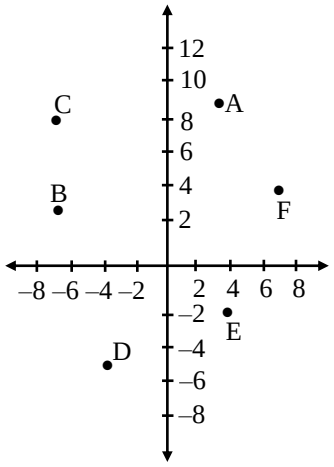
3. (i) –4 (ii) –3 (iii) (–4, –3)

4. (i) 6 (ii) –3 (iii) (6, –3)

5. (i) 1, –3, –8, 8 (ii) 3, 5, –5, –7

(iii) P(1, 3), Q (–3, 5), R(–8, –5), S(8, –7)

6.

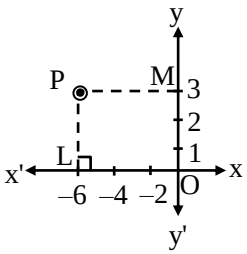


16. (i) A(0, 0), B(2a, 0), C (2a, 2a), D (0, 2a)

(ii) A (–a, –a), B(a, – a), C(a, a), D(–a, a)

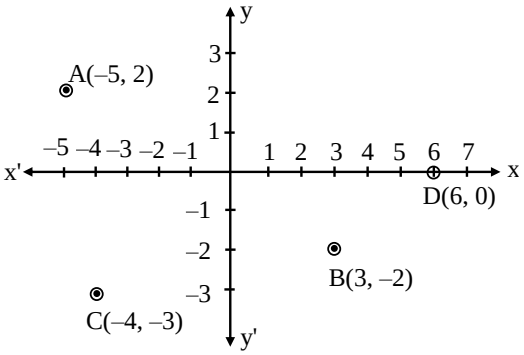
20. (a) II (b) IV (c) III (d) I

21.

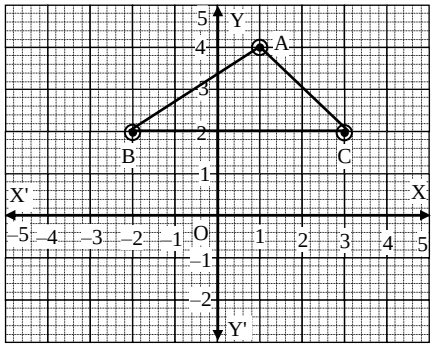


L(–6, 0), M(0, 3)

22.

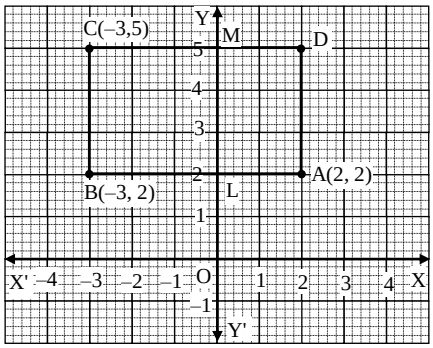


23.

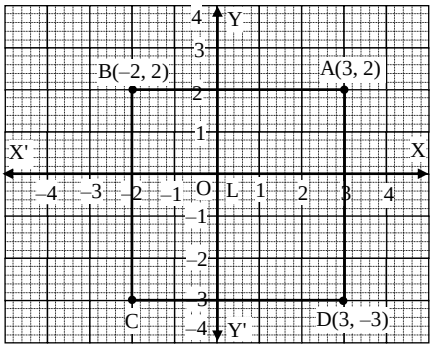


Area = 5 sq. units.

24. D(2, 5), 15 sq units



25. C(–2, –3), 25 sq units



26. x-axis, y-axis

27. Origin O

28. 4

29. 0

30. 0

31. (–5, 0)

32. –7