MATHS

BOOKS - NCERT MATHS (ENGLISH)

COORDINATE GEOMETRY

Exercise 3 1 Multiple Choice Questions Mcqs

1. Point (-3,5) lies in the

A. first quadrant

B. second quadrant

C. third quadrant

D. fourth quadrant

Answer: B

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2. Signs of the abscissa and ordinate of a point in the second quadrant are respectively.

A. $+, +$

B. $-, -$

C. $-, +$

D. $+, -$

Answer: C

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3. Point (0,-7) lies

A. on the X-axis

B. in the second quadrant

C. on the Y-axis

D. in the fourth quadrant

Answer: C

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4. Point (-10,0) lies

A. on the negatice direction on the X-axis

B. on the negative direction of the Y-axis

C. in the third quadrant

D. in the fourth quadrant

Answer: A

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5. Abscissa of all the points on the X-axis is

A. 0

B. 1

C. 2

D. any number

Answer: D

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6. Ordinate of all points on the X-axis is

A. 0

B. 1

C. -1

D. any number

Answer: A

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7. The point at which the two coordinate axes meet is called the

A. abscissa

B. ordinate

C. origin

D. quadrant

Answer: C

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8. A point both of whose coodinate are negative will be in

A. quadrant

B. II quadrant

C. III quadrant

D. IV quadrant

Answer: C

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9. Points $(1, -1), (2, -2), (-3, -4), (4, -5)$

A. lie in II quadrant

B. lie in III quadrant

C. lie in IV quadrant

D. do not lie in the same quadrant

Answer: D

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10. If y-coordinate of a point is zero, then this point always lies

A. in I quadrant

B. in II quadrant

C. on X-axis

D. on Y-axis

Answer: C

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11. The point (-5,2) and (2,-5) lie in the

A. same quadrant

B. II and III quadrants , respectively

C. II and IV quadrants , respectively

D. IV and II quadrants, respectively

Answer: C

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12. If the perpendicular distance of a point P from the X-axis is 5 units and the foot of the perpendicular lies on the negative direction of X-axis then the point P has

A. x-coordinate =-5

B. y-coordinate =5 only

C. y-coordiante=-5 only

D. y-coordinate =5 or -5

Answer: D

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13. On plotting the points 0(0,0),A(3,0),B(3,4), C(0,4) and joining 0A, AB BC and C0 . Which of the following figure is obtained?

A. Square

B. Rectangle

C. Trapezium

D. Rhombus

Answer: B

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14. If P(-1,1), Q(3,-4), R(1,-1), S(-2,-3) and T(-4,4)are plotted on the graph paper, then the point(s) in the fourth quadrant is/are

A. P and T

B. Q and R

C. Only S

D. P and R

Answer: B

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15. If the coordinates of the two points are P(-2,3) and Q(-3,5) , then (Abscissa of P)-(Abscissa of Q) is

A. $(1) - 5$

B. $(2)1$

C. $(3) - 1$

D. $(4) - 2$

Answer: B

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16. If P(5,1), Q(8,0), R(0,4), S(0,5) and 0(0,0) are plotted on the graph paper, then the point(s) on the X-axis is/are

A. P and R

B. R and S

C. Only Q

D. Q and O

Answer: D

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17. The abscissa of a point is positive in the First and Second quadrant (b) Second and Third quadrant Third and Fourth quadrant (d) Fourth and First quadrant

A. I and II quadrants

B. I and IV quadrants

C. I quadrant

D. II quadrant

Answer: B

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18. The points whose abscissa and ordinate have different signs will lie in

A. I and II quadrants

B. II and III quadrants

C. I and III quadrants

D. II and IV quadrants

Answer: D

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19. In following figure, coordinates of P are

A. $(-4, 2)$

B. $(-2, 4)$

C. $(4, -2)$

D. $(2, -4)$

Answer: B

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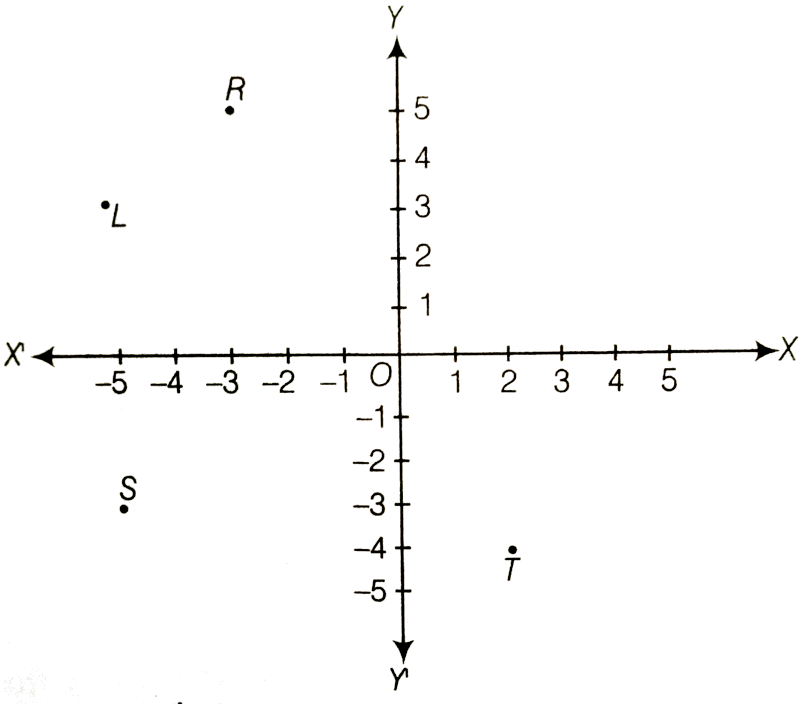
20. In following figure, the point identified y the coordinates (-5,3) is



A. T

B. R

C. L

D. S

Answer: C

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21. The point whose ordinate is 4 and which lies on y-axis is

A. (4,0)

B. (0,4)

C. (1,4)

D. (4,2)

Answer: B

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22. Which of the points P(0,3), Q(1,0), R(0,-1),S(-5,0) and T(1,2) do not lie on the X-axis ?

A. P and R only

B. Q and S only

C. P,R and T

D. Q,S and T

Answer: C

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23. The point which lies on Y-axis at a distance of 5 units in the negative direction of Y-axis is

A. (0,5)

B. (5,0)

C. (0,-5)

D. (-5,0)

Answer: C

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24. The perpendicular distance of the point P(3,4) from the Y-axis is

A. 3

B. 4

C. 5

D. 7

Answer: A

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Exercise 3 2 Very Short Answer Type Questions

1. Write whether the following are true or false ? Justify your answer.

(i) Point (3,0) lies in the first quadrant.

(ii) Points (1,-1) and (-1,1) lie in the same quadrant.

(iii) The coordinate of a point whose ordinate is $-\frac{1}{2}$ and abscissa is 1 are $\left(-\frac{1}{2}, 1\right)$.

(iv) A point lies on Y-axis at a distance of 2 units from the X-axis. Its coordinate are (2,0).

(v) (-1,7) is a point in the second quadrant.

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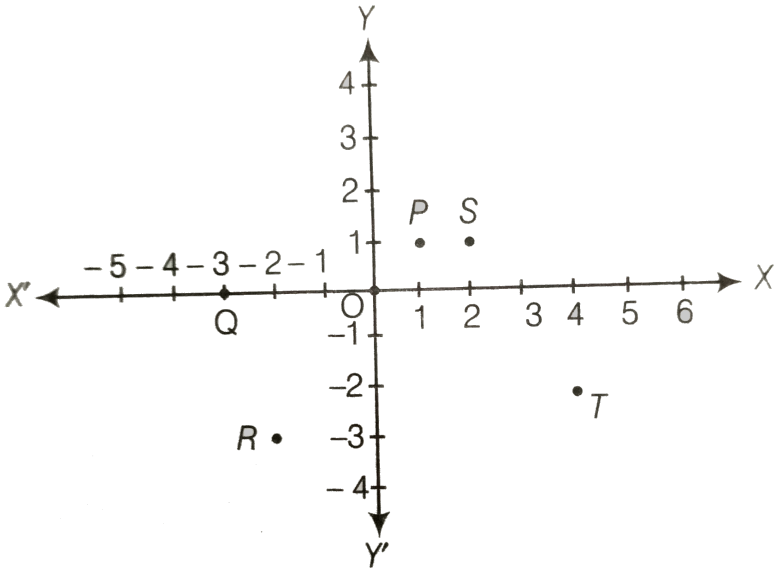
Exercise 3 3 Short Answer Type Questions

1. Write the coordinate of each of the points P,Q, R,S,T and o from the figure



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2. Plot the following points and write the name of the figure obtained by joining , them in order p(-3,2), Q(-7,-3), R(6,-3) and S(2,2).

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

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

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4. 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)

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5. 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.

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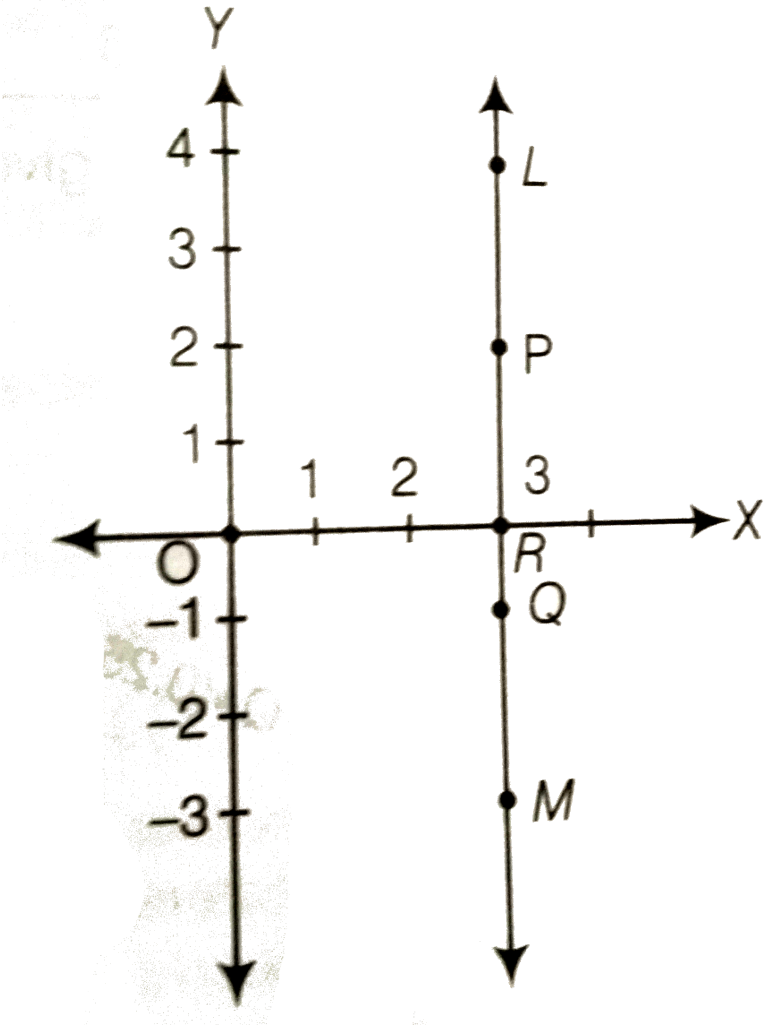
6. In figure LM is a line parallel to the Y-axis at a distance of 3 units .

(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 ?



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

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

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8. Which of the following point lies on Y-axis ? $A(1,1), B(1,0), C(0,1), D(0,0), E(0,-1), G(0,5), H(-7,0)$ and $I(3$

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9. Plot the points (x, y) given by the following table. Use scale 1 cm=0.25 unit.

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

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10. A point lies on positive direction of 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 negative direction of Y-axis at a distance of 7 units from X-axis ?

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11. 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.

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12. 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) and F(1,0).

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Exercise 3 4 Long Answer Type Questions

1. 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 coordinate of the vertex C.

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2. 23. Write the coordinates of the vertices of a rectangle whose length and breadth are one 5 and 3 units respectively, one vertex at origin, the longer side on the x-axis and of the vertices in the third quadrant.

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

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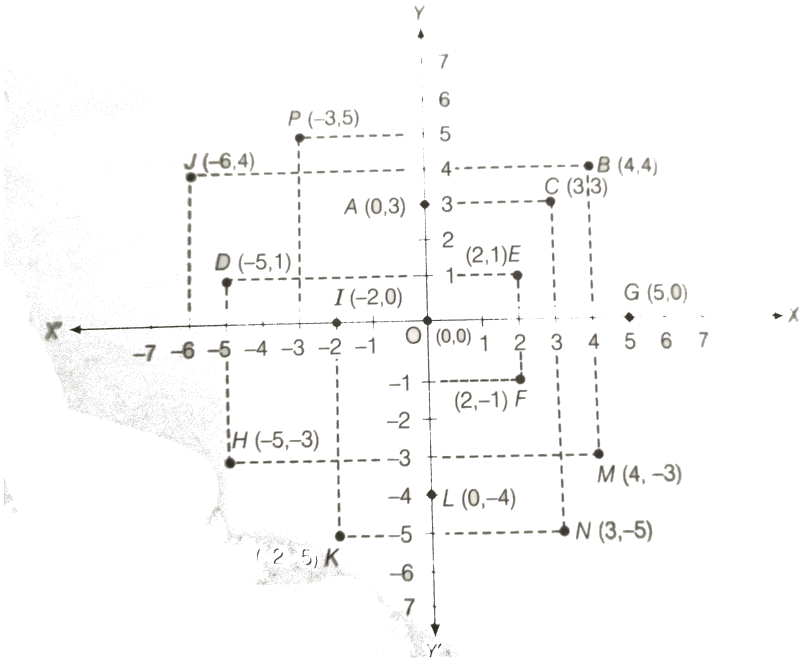
4. From the given figure, answer the following questions



(i) Write the points whose abscissa is 0.

(ii) Write the points whose ordinate is 0.

(iii) Write the points whose abscissa is -5.

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5. Plot the points A(1,-1) and B(4,5).

(i) Draw the 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.

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