



MATHS

NCERT - NCERT Maths(Telugu)

CO-ORDINATE GEOMETRY

Exercise

1. The set of intelligent students in a class is



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2. In a locality, there is a main road along North-South direction. The map is given below. With the help of the picture answer the following questions. (Start from main road to different street and head should be in east) :
What is there on the 3rd place on the left side

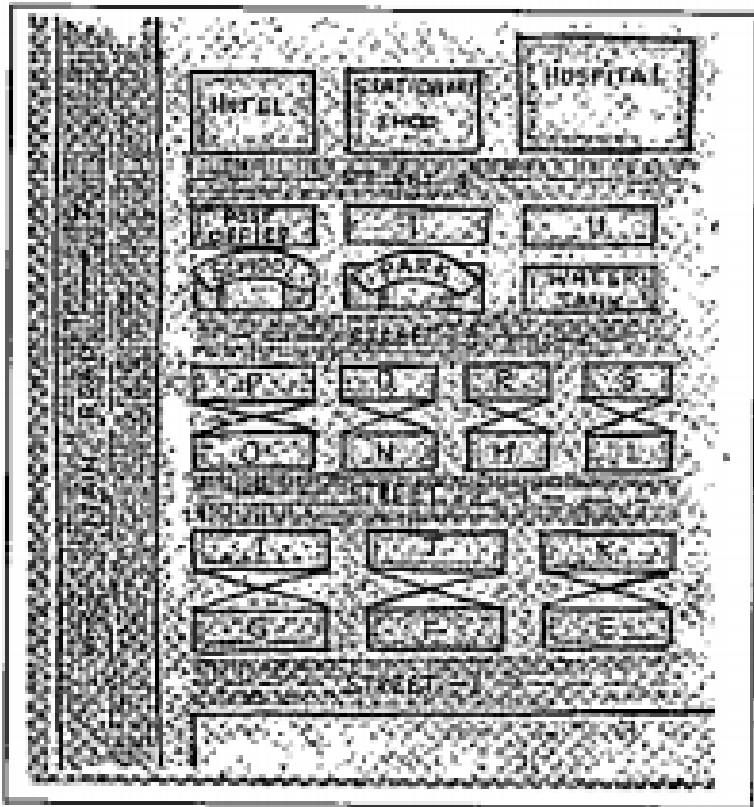
in

street

no.

3

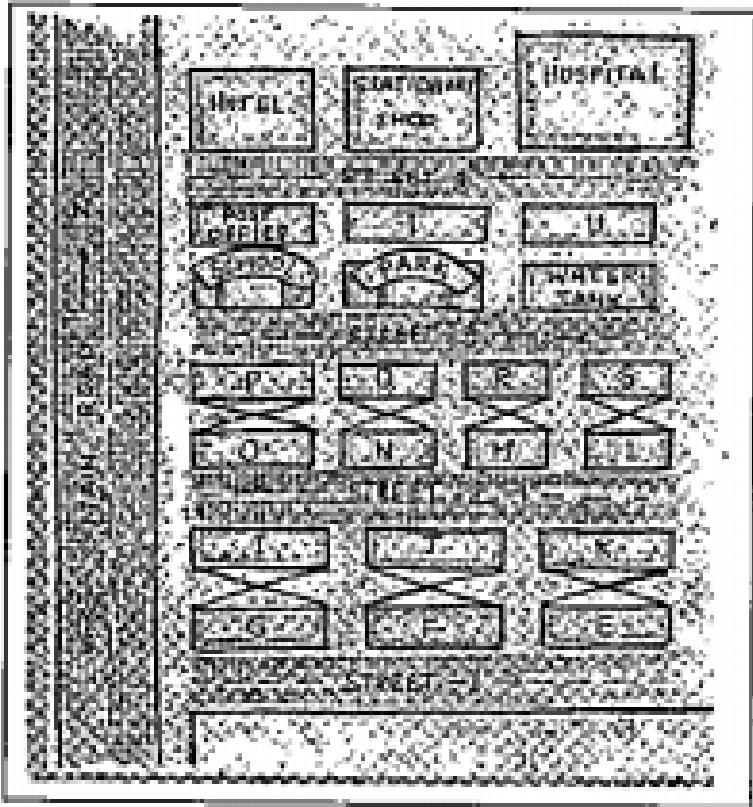
?



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3. In a locality, there is a main road along North-South direction. The map is given below. With the help of the picture answer the following questions. (Start from main road to different street and head should be in east) :
Find the name of the 2nd house which is in

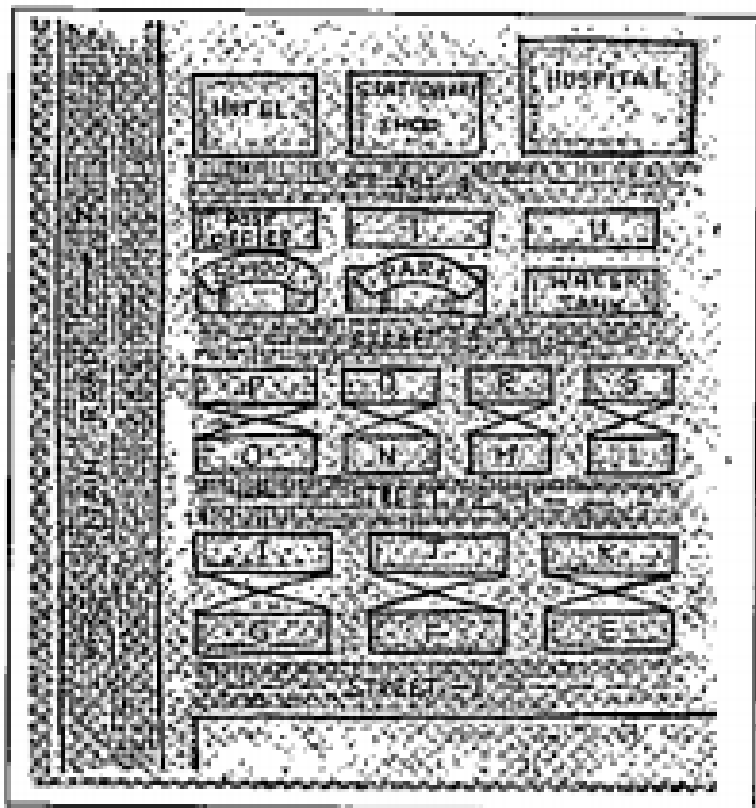
right side of street 2.



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4. In a locality, there is a main road along North-South direction. The map is given below. With the help of the picture answer the following questions. (Start from main road to different street and head should be in east) :

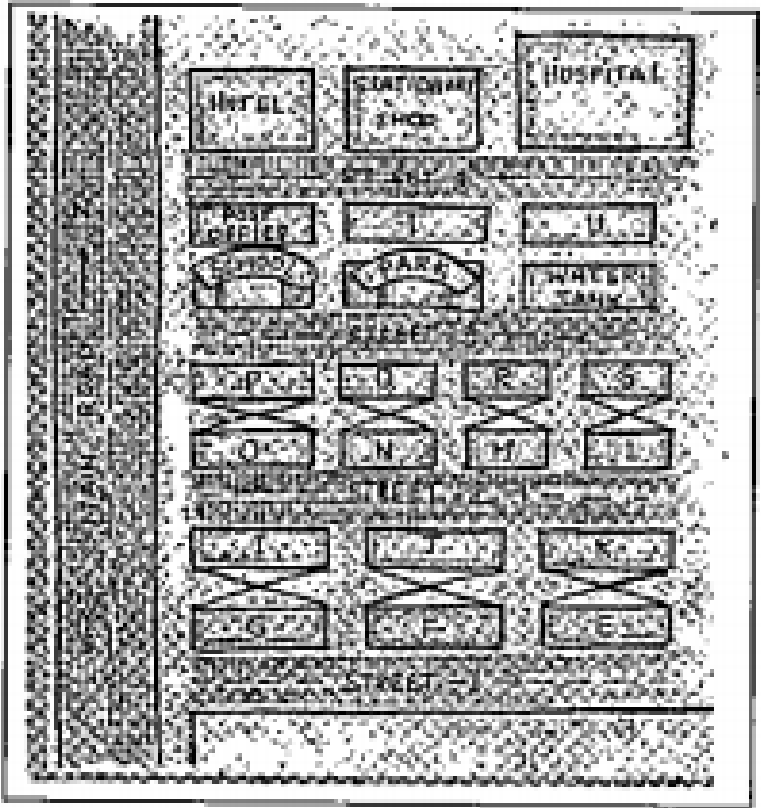
Locate the position of Mr. K'S house.



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5. In a locality, there is a main road along North-South direction. The map is given below. With the help of the picture answer the following questions. (Start from main road to different street and head should be in east) :

How do you locate the position of the post



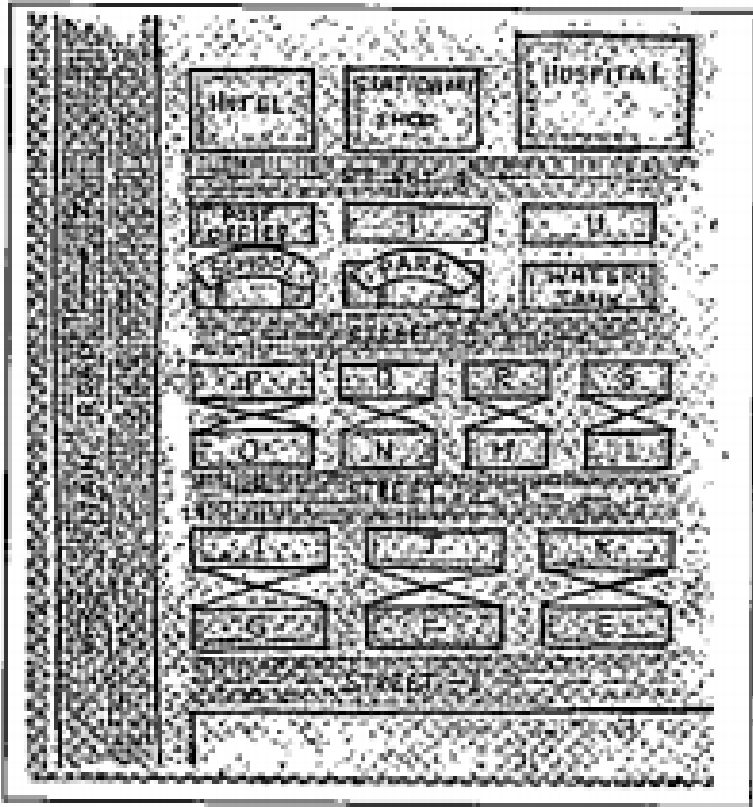
office?



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6. In a locality, there is a main road along North-South direction. The map is given below. With the help of the picture answer the following questions. (Start from main road to different street and head should be in east) :

How do you locate the hospital?



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7. Among the points given below some of the points lie on X-axis. Identify them

(i) (0,5) (ii) (0,0) (iii) (3,0)

(iv) (-5,0) (v) (-2,-3) (vi) (-6,0)

(vii) (0,a) (viii) (b,0)



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8. Among the points given below some of the points lie on X-axis. Identify them

(i) (0,5) (ii) (0,0) (iii) (3,0)

(iv) $(-5,0)$ (v) $(-2,-3)$ (vi) $(-6,0)$

(vii) $(0,a)$ (viii) $(b,0)$



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9. Among the points given below some of the points lie on X-axis. Identify them

(i) $(0,5)$ (ii) $(0,0)$ (iii) $(3,0)$

(iv) $(-5,0)$ (v) $(-2,-3)$ (vi) $(-6,0)$

(vii) $(0,a)$ (viii) $(b,0)$



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10. Among the points given below some of the points lie on X-axis. Identify them

(i) (0,5) (ii) (0,0) (iii) (3,0)

(iv) (-5,0) (v) (-2,-3) (vi) (-6,0)

(vii) (0,a) (viii) (b,0)



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11. Among the points given below some of the points lie on X-axis. Identify them

(i) (0,5) (ii) (0,0) (iii) (3,0)

(iv) $(-5,0)$ (v) $(-2,-3)$ (vi) $(-6,0)$

(vii) $(0,a)$ (viii) $(b,0)$



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12. Among the points given below some of the points lie on X-axis. Identify them

(i) $(0,5)$ (ii) $(0,0)$ (iii) $(3,0)$

(iv) $(-5,0)$ (v) $(-2,-3)$ (vi) $(-6,0)$

(vii) $(0,a)$ (viii) $(b,0)$



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13. Among the points given below some of the points lie on X-axis. Identify them

(i) (0,5) (ii) (0,0) (iii) (3,0)

(iv) (-5,0) (v) (-2,-3) (vi) (-6,0)

(vii) (0,a) (viii) (b,0)



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14. Among the points given below some of the points lie on X-axis. Identify them

(i) (0,5) (ii) (0,0) (iii) (3,0)

(iv) $(-5,0)$ (v) $(-2,-3)$ (vi) $(-6,0)$

(vii) $(0,a)$ (viii) $(b,0)$



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15. Among the points given below some of the points lie on X-axis. Identify them

(i) $(0,5)$ (ii) $(0,0)$ (iii) $(3,0)$

(iv) $(-5,0)$ (v) $(-2,-3)$ (vi) $(-6,0)$

(vii) $(0,a)$ (viii) $(b,0)$



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16. Which axis the points such as $(0,x)$ $(0,y)$ $(0,2)$ and $(0,-5)$ lie on? Why?



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17. What is the general form of the points which lie on X-axis?



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18. Which the quadrant in which of the following points lie?

(i) $(-2,3)$ (ii) $(5,-3)$ (iii) $(4,2)$ (iv) $(-7,-6)$

(v) $(0,8)$ (vi) $(3,0)$ (vii) $(-4,0)$ (viii) $(0,-6)$



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19. Which the quadrant in which of the following points lie?

(i) $(-2,3)$ (ii) $(5,-3)$ (iii) $(4,2)$ (iv) $(-7,-6)$

(v) $(0,8)$ (vi) $(3,0)$ (vii) $(-4,0)$ (viii) $(0,-6)$





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20. Which the quadrant in which of the following points lie?

(i) $(-2,3)$ (ii) $(5,-3)$ (iii) $(4,2)$ (iv) $(-7,-6)$

(v) $(0,8)$ (vi) $(3,0)$ (vii) $(-4,0)$ (viii) $(0,-6)$



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21. Which the quadrant in which of the following points lie?

(i) $(-2,3)$ (ii) $(5,-3)$ (iii) $(4,2)$ (iv) $(-7,-6)$

(v) $(0,8)$ (vi) $(3,0)$ (vii) $(-4,0)$ (viii) $(0,-6)$



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22. Which the quadrant in which of the following points lie?

(i) $(-2,3)$ (ii) $(5,-3)$ (iii) $(4,2)$ (iv) $(-7,-6)$

(v) $(0,8)$ (vi) $(3,0)$ (vii) $(-4,0)$ (viii) $(0,-6)$



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23. Which the quadrant in which of the following points lie?

(i) (-2,3) (ii) (5,-3) (iii) (4,2) (iv) (-7,-6)

(v) (0,8) (vi) (3,0) (vii) (-4,0) (viii) (0,-6)



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24. Which the quadrant in which of the following points lie?

(i) (-2,3) (ii) (5,-3) (iii) (4,2) (iv) (-7,-6)

(v) (0,8) (vi) (3,0) (vii) (-4,0) (viii) (0,-6)





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25. Which the quadrant in which of the following points lie?

(i) $(-2,3)$ (ii) $(5,-3)$ (iii) $(4,2)$ (iv) $(-7,-6)$

(v) $(0,8)$ (vi) $(3,0)$ (vii) $(-4,0)$ (viii) $(0,-6)$



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26. Write the abscissae and ordinates of the following points.

(i) $(4,-8)$ (ii) $(-5,3)$ (iii) $(0,0)$ (iv) $(5,0)$ (v) $(0,-8)$



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27. Write the abscissae and ordinates of the following points.

(i) (4,-8) (ii) (-5,3) (iii) (0,0) (iv) (5,0) (v) (0,-8)



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28. Write the abscissae and ordinates of the following points.

(i) (4,-8) (ii) (-5,3) (iii) (0,0) (iv) (5,0) (v) (0,-8)



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29. Write the abscissae and ordinates of the following points.

(i) (4,-8) (ii) (-5,3) (iii) (0,0) (iv) (5,0) (v) (0,-8)



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30. Write the abscissae and ordinates of the following points.

(i) (4,-8) (ii) (-5,3) (iii) (0,0) (iv) (5,0) (v) (0,-8)



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31. Which of the following points lie on the axes? Also name the axis

(i) $(-5,-8)$ (ii) $(0,13)$ (iii) $(4,-2)$ (iv) $(-2,0)$

(v) $(0,-8)$ (vi) $(7,0)$ (vii) $(0,0)$



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32. Which of the following points lie on the axes? Also name the axis

(i) $(-5,-8)$ (ii) $(0,13)$ (iii) $(4,-2)$ (iv) $(-2,0)$

(v) $(0,-8)$ (vi) $(7,0)$ (vii) $(0,0)$



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33. Which of the following points lie on the axes? Also name the axis

(i) $(-5,-8)$ (ii) $(0,13)$ (iii) $(4,-2)$ (iv) $(-2,0)$

(v) $(0,-8)$ (vi) $(7,0)$ (vii) $(0,0)$



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34. Which of the following points lie on the axes? Also name the axis

(i) $(-5,-8)$ (ii) $(0,13)$ (iii) $(4,-2)$ (iv) $(-2,0)$

(v) $(0,-8)$ (vi) $(7,0)$ (vii) $(0,0)$



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35. Which of the following points lie on the axes? Also name the axis

(i) $(-5,-8)$ (ii) $(0,13)$ (iii) $(4,-2)$ (iv) $(-2,0)$

(v) $(0,-8)$ (vi) $(7,0)$ (vii) $(0,0)$





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36. Which of the following points lie on the axes? Also name the axis

(i) $(-5,-8)$ (ii) $(0,13)$ (iii) $(4,-2)$ (iv) $(-2,0)$

(v) $(0,-8)$ (vi) $(7,0)$ (vii) $(0,0)$



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37. Which of the following points lie on the axes? Also name the axis

(i) $(-5,-8)$ (ii) $(0,13)$ (iii) $(4,-2)$ (iv) $(-2,0)$

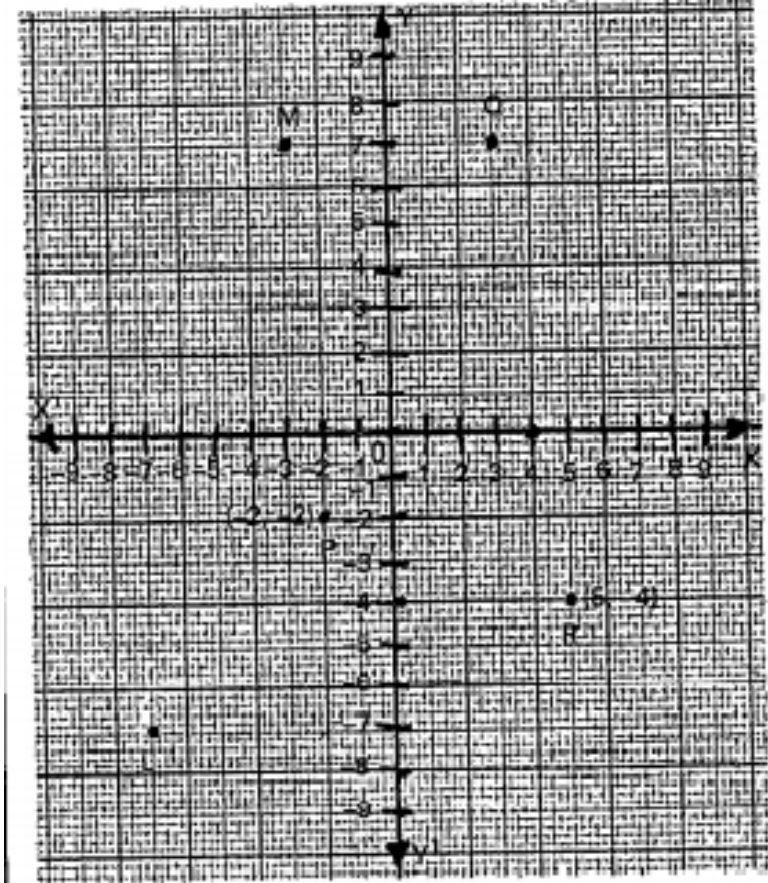
(v) $(0,-8)$ (vi) $(7,0)$ (vii) $(0,0)$



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38. Write the following based on the graph :

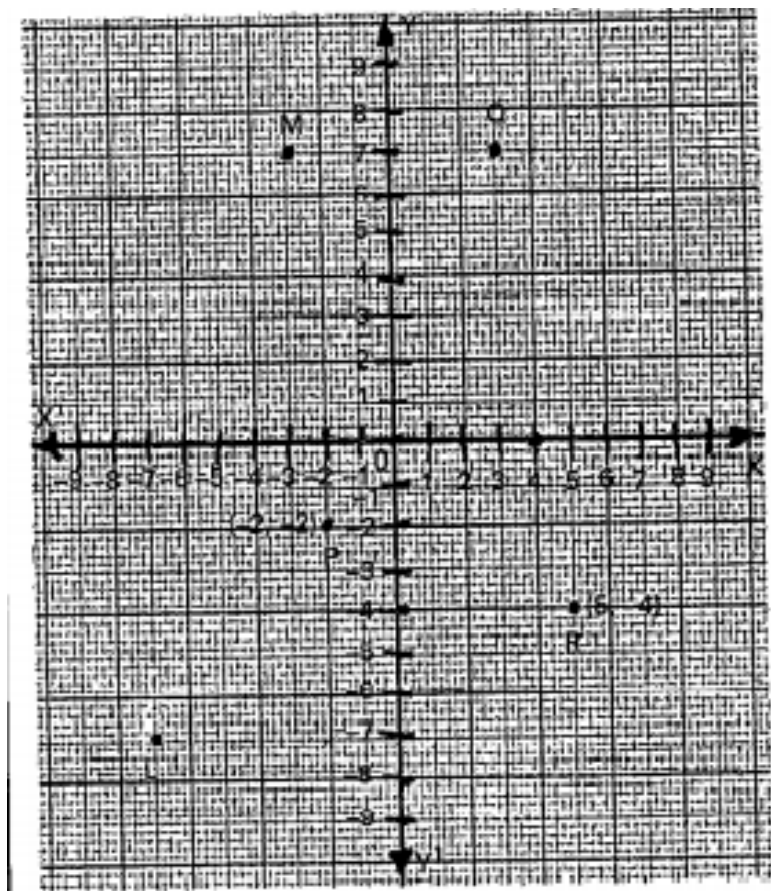
The ordinate of L.



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39. Write the following based on the graph :

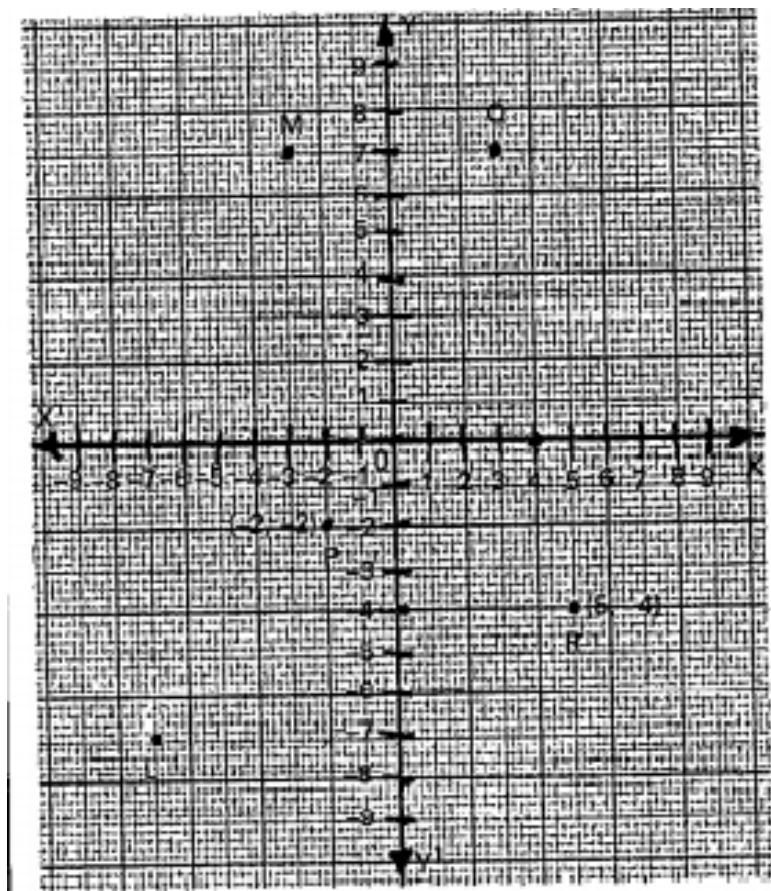
The ordinate of Q.



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40. Write the following based on the graph :

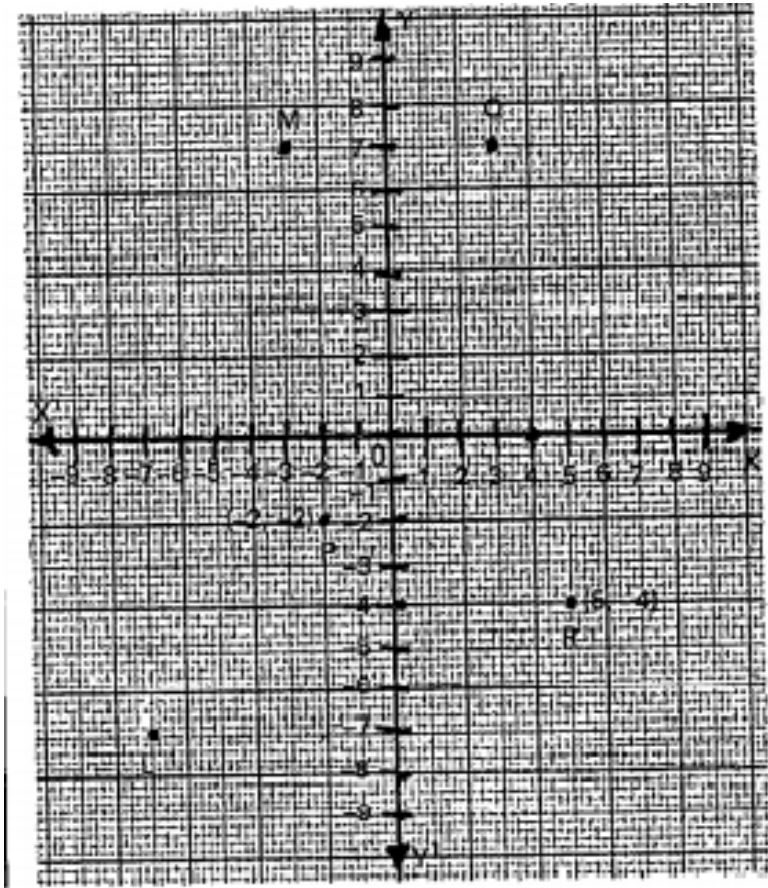
The point denoted by $(-2,-2)$.



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41. Write the following based on the graph :

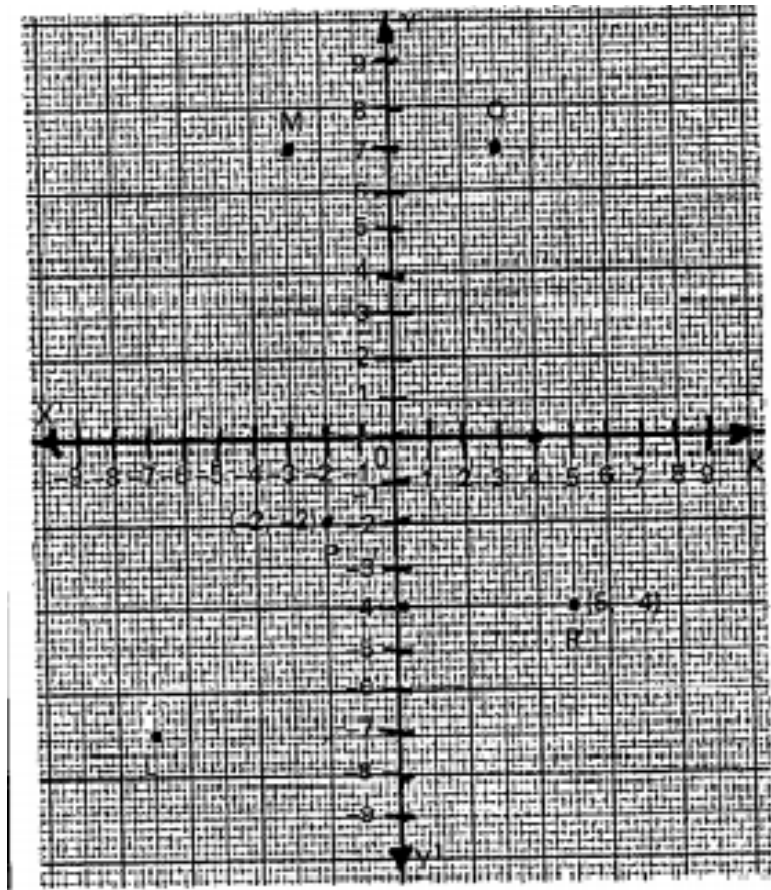
The point denoted by $(5, -4)$.



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42. Write the following based on the graph :

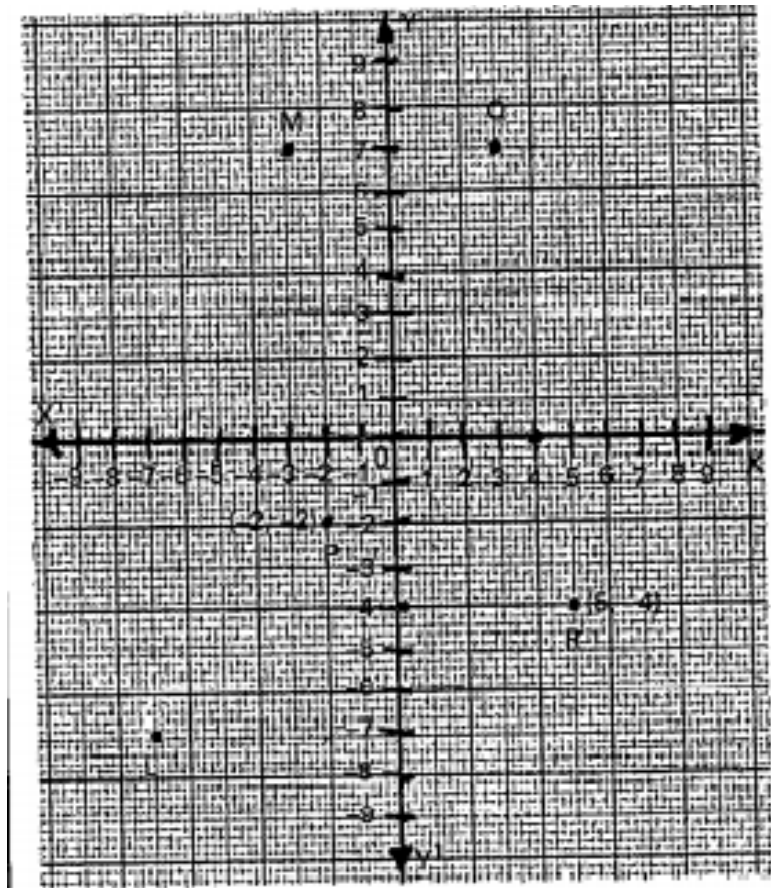
The abscissa of N.



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43. Write the following based on the graph

:The abscissa of M.



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44. State True or False, if 'false' write correct statement.

In the Cartesian plane the horizontal line is called Y-axis.



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45. State True or False, if 'false' write correct statement.

In the Cartesian plane the vertical line is called Y-axis.





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46. State True or False, if 'false' write correct statement.

The point which lies on both the axes is called origin.



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47. State True or False, if 'false' write correct statement.

The point $(2,-3)$ lies in the third quadrant.



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48. State whether the following statements are true or false. Justify your answer.

$S = \{5, 6, 7\}$ implies $8 \in S$.



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49. State True or False, if 'false' write correct statement.

The point $(-x,-y)$ lies in the first quadrant where

$$x < 0, y < 0.$$



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50. Plot the following ordered pairs on a graph sheet. What do you observe?

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

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



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51. Plot the following ordered pairs on a graph sheet. What do you observe?

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

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



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52. The point $A(5,-1,1)$, $B(7,-4,7)$, $C(1,-6,10)$, $D(-1,-3,4)$ form



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53. Plot the following points on a Cartesian plane

(i) B(-2,3) (ii) L(5,-8) (iii) U(6,4) (iv) E(-3,-3)



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54. Plot the following points on a Cartesian plane

(i) B(-2,3) (ii) L(5,-8) (iii) U(6,4) (iv) E(-3,-3)



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55. Plot the following points on a Cartesian plane

(i) B(-2,3) (ii) L(5,-8) (iii) U(6,4) (iv) E(-3,-3)



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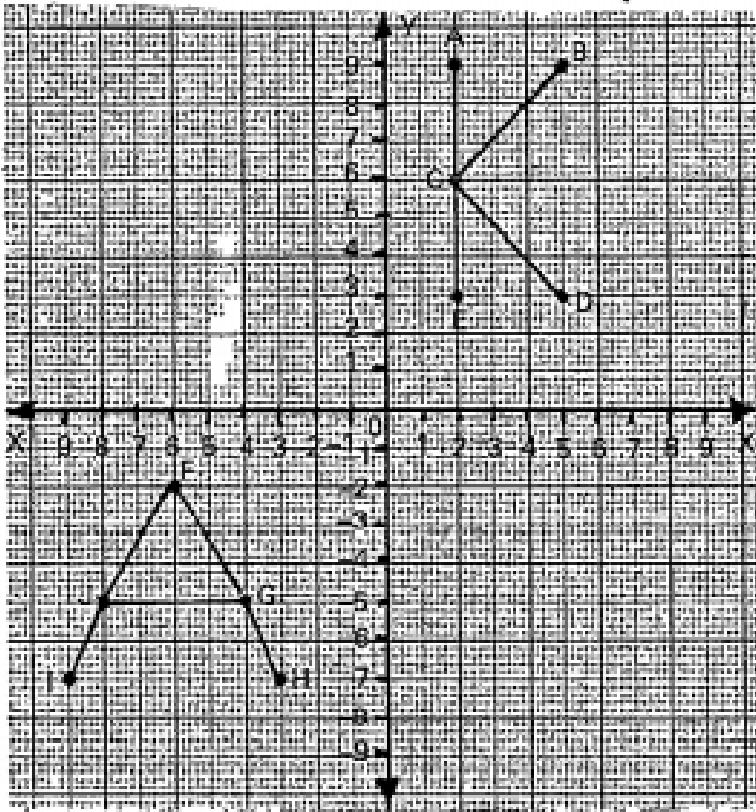
56. Plot the following points on a Cartesian plane

(i) B(-2,3) (ii) L(5,-8) (iii) U(6,4) (iv) E(-3,-3)



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57. Write the co-ordinates of the points A, B, C, D, E.

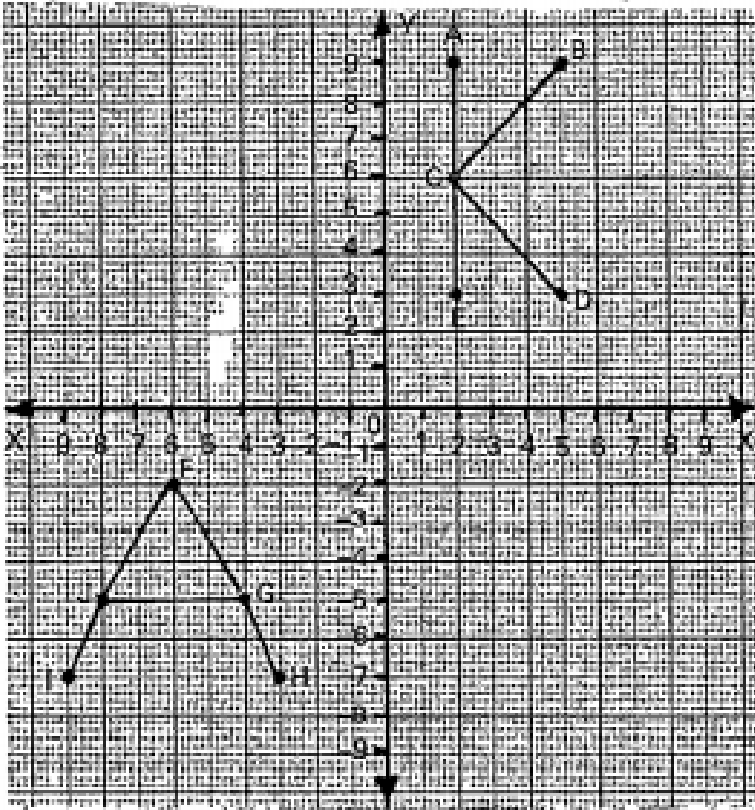


D, E.



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58. Write the co-ordinates of F, G, H, I, J.



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59. Plot the following in the Cartesian plane

whose x, y co-ordinates are given

x	2	3	-1	0	-9	-4
y	-3	-3	4	11	0	-6
(x, y)						



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60. Plot at least 10 points in graph sheet, each having the sum of its co-ordinates equal to 8.

What do you observe ?



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61. Are the positions of $(5,-8)$ and $(-8,5)$ is same? Justify your answer.



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62. What can you say about the position of the points $(1,2)$, $(1,3)$, $(1,-4)$, $(1,0)$ and $(1,8)$. Locate on a graph sheet.



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63. Verify whether the following points are collinear or not .

$(1, -6), (3, -4), (4, -3)$.



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64. What can you say about the position of the points $(5,4)$ $(8,4)$ $(3,4)$, $(0,4)$, $(-4,4)$, $(-2,4)$?

Locate the points on a graph sheet. Justify your answer.



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65. The area of the quadrilateral formed by the points $(1, 2)$, $(2, -3)$, $(-2, 4)$, $(0, 5)$ is



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66. Plot the points $(0,0)$, $(0,3)$, $(4,3)$, $(4,0)$ in graph sheet. Join the points with straight lines to make a rectangle. Find the area of the rectangle.



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67. Plot the points $A(2,2)$, $B(6,2)$, $C(8,5)$ and $D(4,5)$ in a graph sheet. Join all the points to make it is a parallalogram. Find its area.



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68. Plot the points $(2,3)$, $(6,3)$ and $(4,7)$ in a graphsheet. Join them to make it a triangle. Find the area of the triangle.



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69. Plot the points $A(2,2)$ $B(6,2)$, $C(8,5)$ and $D(4,5)$ in a graph sheet. Join all the points to make it is a parallalogram. Find its area.



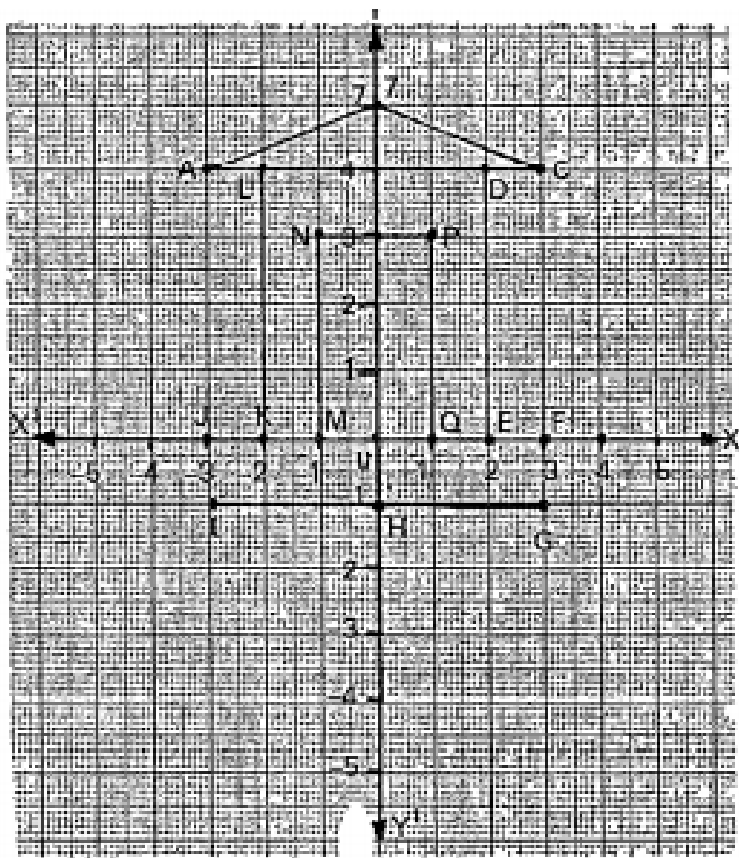
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70. Plot at least six points in a graph sheet, each having the sum of its coordinates equal to 5.



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71. Look at the graph. Write the co-ordinates of the points A, B, C, D, E, F, G, H, I, J, K, L, M, N, P, O and Q.



O and Q.



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72. In a graph Sheet Plot each pair of points,
join them by line segments

(i) $(2,5)$, $(4,7)$ (ii) $(-3, 5)$, $(-1, 7)$ (iii)

$(-3, -4)$, $(2, -4)$ (iv)

$(-3, -5)$, $(2, -5)$ (v) $(4, -2)$, $(4, -3)$

(vi) $(-2, 4)$, $(-2, 3)$ (vii) $(-2, 1)$, $(-2, 0)$

Now join the following pairs of points by
straight line segments, in the same graph.

(viii) $(-3, 5)$, $(-3, 4)$ (ix) $(2, 5)$, $(2, -4)$ (x)

$(2, -4)$, $(4, -2)$ (xi) $(2, -4)$, $(4, -3)$ (xii)

$(4, -2)$, $(4, 7)$ (xiii) $(4, 7)$, $(-1, 7)$ (xiv)

$(-3, 2), (2, 2)$

Now you will get a surprise figure. What is it?



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73. Plot each pair of points, join them by straight line segments: $(-2, 1), (2, 1), (-2, 1), (-4, 0), (4, 0), (2, 1), (4, 0), (2, 3), (2, 1), (2, 3), (2, 3), (-2, 3), (2, 3), (-2, 3), (-2, 3), (-4, 0), (-2, 1), (-2, 3)$.



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74. Find the value of $\tan A + \cos A$ where $A = 30^\circ$.



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75. Find the equation of a curve whose gradient is $\frac{dy}{dx} = \frac{y}{x} - \cos^2 \frac{y}{x}$, where $x > 0, y > 0$ and which passes through the point $\left(1, \frac{\pi}{4}\right)$.

A. Q_1

B. Q_2

C. Q_3

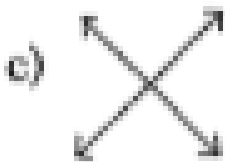
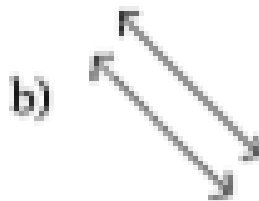
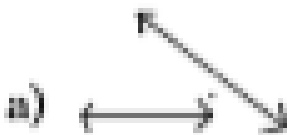
D. Q_4

Answer:



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76. Which of the following are parallel lines?



d) None

A. $x = 3$

B. $x + y = 0$

C. $x = 0$

D. $y = 3$

Answer:



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77. Co-ordinates of the origin

A. $(0, 2)$

B. (3,0)

C. (0, 0)

D. (1,1)

Answer:



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78. The lines $x=2$, $y=3$ are ___ to each other.

A. Parallel

B. Perpendicular

C. Coinciding

D. None

Answer:



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79. The equation parallel to y-axis.

A. $y = -3$

B. $x = -3$

C. $x + y = 1$

D. $x = y$

Answer:



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80. What is the general form of the points which lie on X-axis ? Write any four points lie on X-axis.

A. (3, 4)

B. (2, 0)

C. -0.5

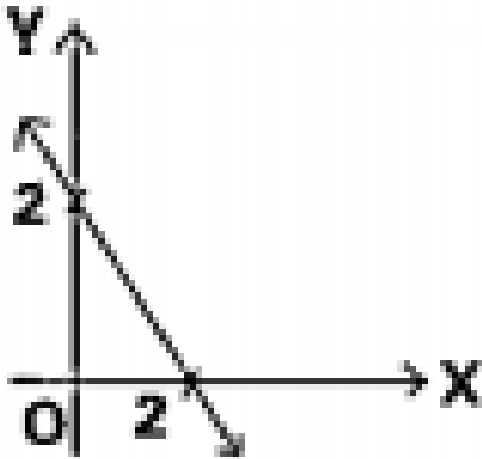
D. (-2, -1)

Answer:



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81. In the adjacent figure, the line represents



A. $x + y = 2$

B. $x = 2$

C. $y = 2$

D. $x - y = 1$

Answer:



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82. The figure formed by joining the points(1, 1), (1, 3), (3, 1), (3, 3) is

- A. Rectangle
- B. Square
- C. Parallelogram
- D. Trapezium

Answer:



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83. Area of the triangle formed with the points $(0, 0)$, $(2, 0)$ and $(0, 3)$ on graph

A. 6sq. units

B. 2sq. units

C. 3sq. units

D. 12sq. units

Answer:



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84. Which of the following points does not lie on the straight line $x + y = 7$? $(-2,9),(-3,-4),(5,-2), (0,7)$

A. $(-2, 9)$

B. $(-3,-4)$

C. $(5,-2)$

D. $(0, 7)$

Answer:



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85. Fill in the Blanks :Co-ordinate geometry is developed by__.



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86. Fill in the Blanks :The point of intersection of co-ordinate axes is___.



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87. Fill in the Blanks : If $(x + y, 1) = (5, x - y)$ then

$x = \underline{\quad}$.



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88. equation of X - axis is



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89. Fill in the Blanks :Every point in a plane has its position_____.



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90. What is the general form of the points which lie on X-axis?



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91. Fill in the Blanks : If $x < 0$ and $y < 0$, then point (x, y) lies in ___ quadrant.



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92. Fill in the Blanks : A line $y = -4$ is at a distance of ___ units from x-axis.



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93. Fill in the Blanks : If $(x, y) = (y, x)$ then ____.



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94. Fill in the Blanks : The plane is called the Cartesian plane named after the mathematician_____.



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95. Which of the following points lie on the axes? Also name them? : $(4,-5)$, $(3, 0)$, $(-4, 0)$, $(-1,$

-3) (-2, 3), (-2.5, 0). (0, -4), (2, 3), (0, -3.5) , (-3, 0),
(0, -5), (3.5, 2.5).



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96. Plot the orderd pairs A(0, 1), B(12, 1). C(10,7),
D(3, 7). What kind of figure is formed ?Find Its
area?



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97. Locate the points on a graph and what do you infer? $(3, 2)$, $(3, 3)$, $(3, -1)$, $(3, 5)$, $(3, -4)$, $(3, 6)$, $(3, 1)$, $(3, 4)$, $(3, -2)$, $(3, -3)$, $(3, 0)$



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98. Locate the points $(0, 0)$, $(1, 1)$, $(2, 2)$, $(3, 3)$ $(4, 4)$, $(-1, -1)$, $(-2, -2)$, $(-3, -3)$, $(-4, -4)$ and what is your observation?



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99. Plot the points on a graph sheet. $(1, 4)$, $(2, 1)$, $(6, 1)$, $(5, 4)$. What is the figure formed ? Find its area.



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