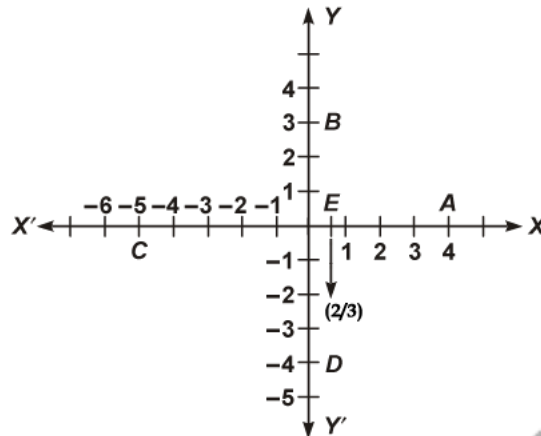


- Q1.** Plot the points  $(x, y)$  given in the following table on the plane, choosing suitable units of distance on the axes.

$x$	-2	-1	0	1	3
$y$	8	7	-1.25	3	-1

- Q2.** How will you describe the position of a table lamp on your study table to another person?
- Q3.** Write the coordinates of the points marked on the axis in figure.



- Q4.** Plot the following ordered pairs  $(x, y)$  of numbers as points in the Cartesian plane. Use the scale 1 cm = 1 unit on the axes.

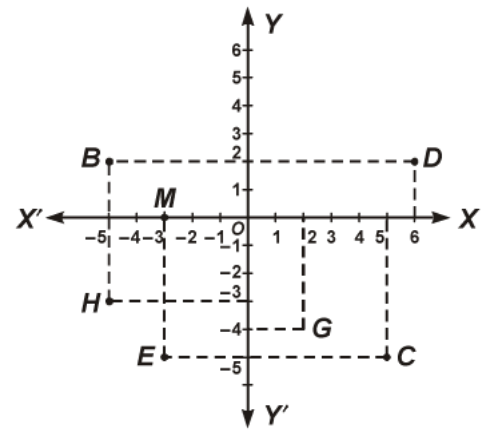
$x$	-3	0	-1	4	2
$y$	7	-3.5	-3	4	-3

- Q5.** Locate the points  $(5, 0)$ ,  $(0, 5)$ ,  $(2, 5)$ ,  $(5, 2)$ ,  $(-3, 5)$ ,  $(-3, -5)$ ,  $(5, -3)$  and  $(6, 1)$  in the Cartesian plane.
- Q6.** (Street Plan): A city has two main roads which cross each other at the centre of the city. These two roads are along the North-South direction and East-West direction. All the other streets of the city run parallel to these roads and are 200m apart. There are about 5 streets in each direction. Using 1 cm = 200 m, draw a model of the city on your notebook. Represent the roads/streets by single lines.
- There are many cross-streets in your model. A particular cross-street is made by two streets, one running in the North-South direction and another in the East-West direction. Each cross street is referred to in the following manner: If the 2<sup>nd</sup> street running in the North-South direction and 5<sup>th</sup> in the East-West direction meet at some crossing, then we will call this cross-street  $(2, 5)$ . Using this convention, find
- (i) how many cross-street can be referred to as  $(4, 3)$ .
- (ii) how many cross-streets can be referred to as  $(3, 4)$ .
- Q7.** 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.

- Q8.** Write the answer of each of the following questions:
- (i) What is the name of horizontal and the vertical lines drawn to determine position of any point in the Cartesian plane?
- (ii) What is the name of each part of the plane formed by these two lines?
- (iii) Write the name of the point where these two lines intersect.

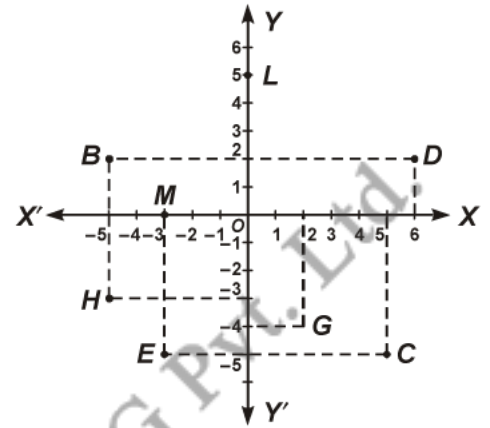
**Q9.** See the figure and write the following:

- (i) The coordinates of B.
- (ii) The coordinates of C.
- (iii) The point identified by the coordinates  $(-3, -5)$ .
- (iv) The point identified by the coordinates  $(2, -4)$ .



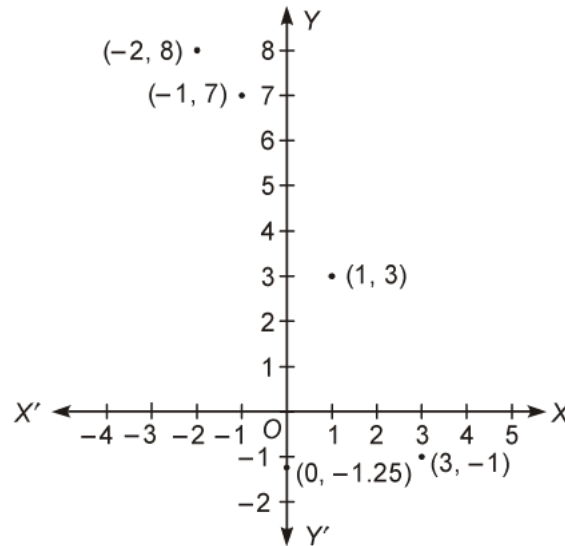
**Q10.** See the figure and write the following:

- (i) The abscissa of the point D.
- (ii) The ordinate of the point H.
- (iii) The coordinates of the point L.
- (iv) The coordinates of the point M.

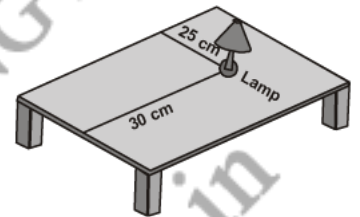


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**S1.** Position of the points are shown by dots in the adjoining figure.

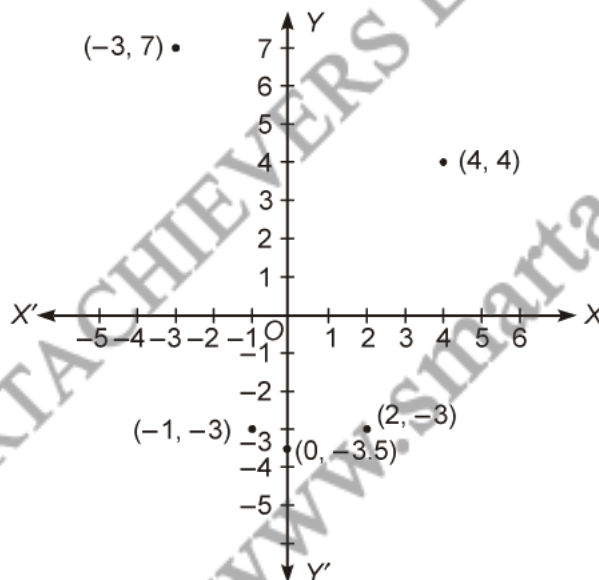


**S2.** Consider the lamp as a point and table as a plane. Choose any two perpendicular edges of the table. Measure the distance of the lamp from the longer edge, suppose it is 25 cm. Again, measure the distance of the lamp from the shorter edge, and suppose it is 30 cm. You can write the position of the lamp as (30, 25) or (25, 30), depending on the order you fix.

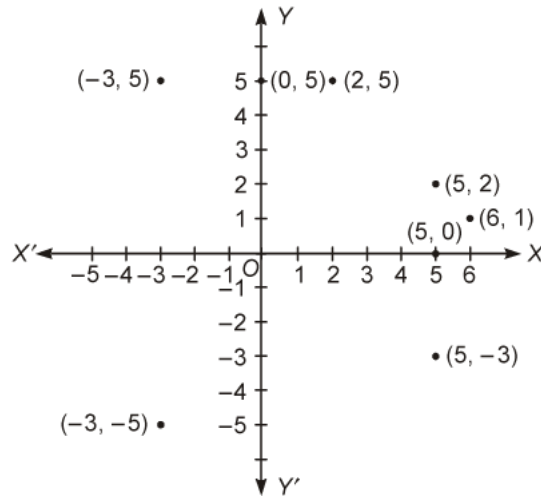


**S3.** (i) (4, 0)      (ii) (0, 3)      (iii) (-5, 0)      (iv) (0, -4)      (v) (2/3, 0)

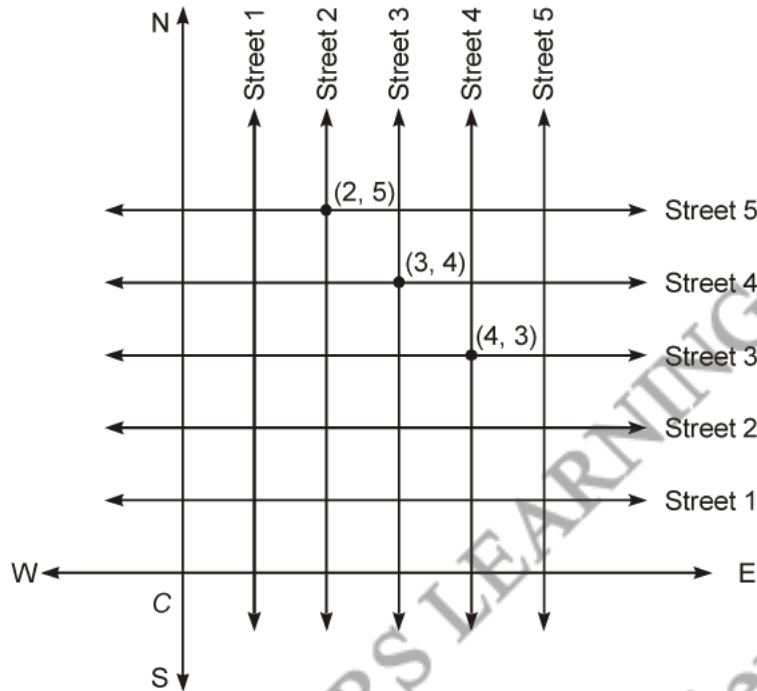
**S4.**



S5.

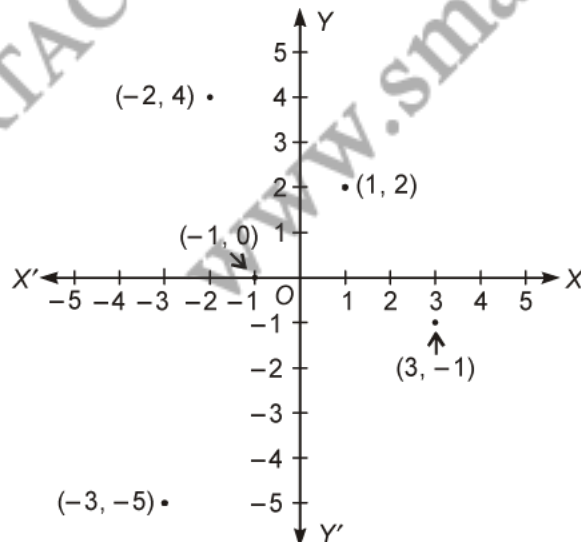


S6. The street plan is shown in figure given below:



Both the cross-streets are marked in the figure above. They are uniquely found because of the two reference lines we have used for locating them.

S7. The point  $(-2, 4)$  lies in quadrant II, the point  $(3, -1)$  lies in the quadrant IV, the point  $(-1, 0)$  lies on the negative  $x$ -axis, the point  $(1, 2)$  lies in the quadrant I and the point  $(-3, -5)$  lies in the quadrant III. Locations of the points are shown in the adjoining figure.



- S8.** (i) The  $x$ -axis and  $y$ -axis                      (ii) Quadrants                      (iii) The origin
- S9.** (i)  $(-5, 2)$                       (ii)  $(5, -5)$                       (iii) E                      (iv) G
- S10.** (iv) 6                      (ii)  $-3$                       (iii)  $(0, 5)$                       (iv)  $(-3, 0)$

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