NCERT SOLUTIONS

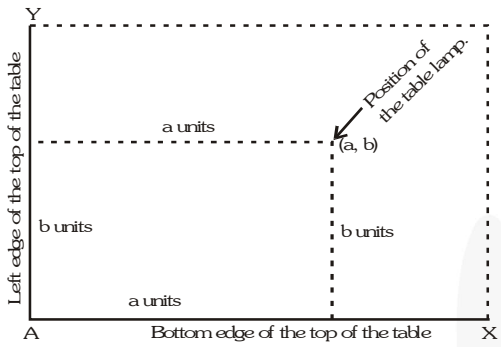
Coordinate Geometry

Saral है, तो सब सरल है।

Ex - 6.1

Q1. How will you describe the position of a table lamp on your study table to another person ?

Sol.



The position of the table lamp is at a distance of a units from the left edge of the top of the table and at a distance b units above the bottom edge of the top of the table. We have marked the bottom edge as the line AX and the left edge as the line AY. Here AY $\perp$ AX. We measure all distances along AX and AY from the corner A. The position of the lamp can be described as (a, b).

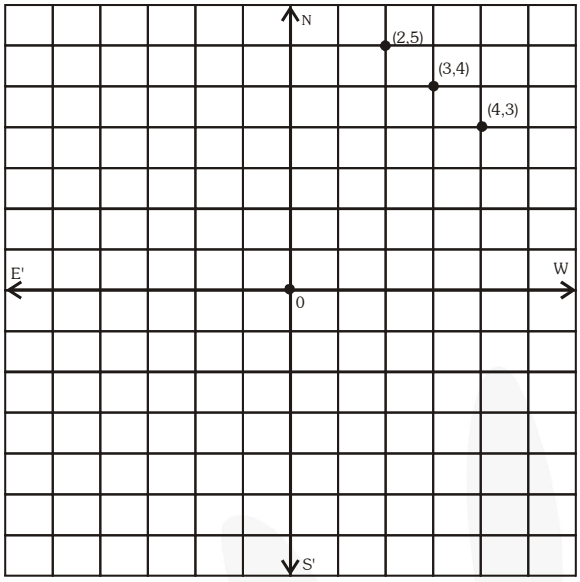
Q2. A city has two main roads meeting at the centre of the city. These two roads are along the North-South direction and East-West direction. All other streets of the city run parallel to main roads and are 200 m apart. There are about 5 streets in each direction. Using 1 cm = 200 m, draw a model of the city on your notebook. Represent roads/streets by single lines.

There are 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. East cross-street is referred to in the following manner : If the 2nd street running in the North-South direction and 5th 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-streets can be referred to as (4, 3) ?

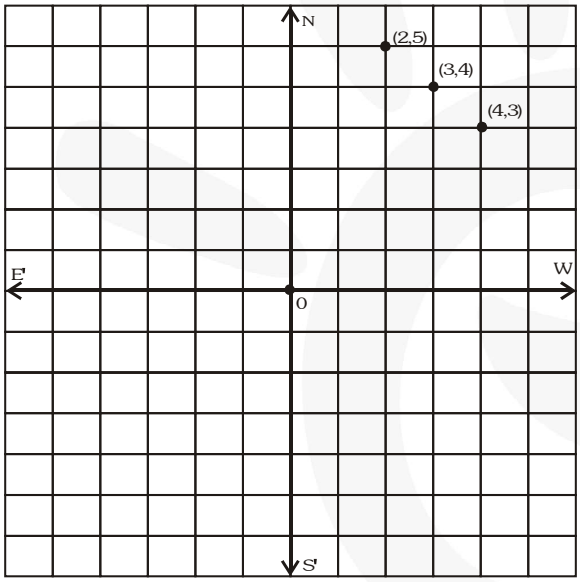
(ii) How many cross-streets can be referred to as (3, 4) ?

Sol.



(i) There is only one cross-street referred to (4, 3).

(ii) There is only one cross-street referred to (3, 4).



Ex - 6.2

Q1. Write the answer of each of the following questions:

(i) What is the name of horizontal and the vertical lines drawn to determine the position of any point in the cartesian plane ?

(ii) What is the name of each part of the plane formed by these two lines ?

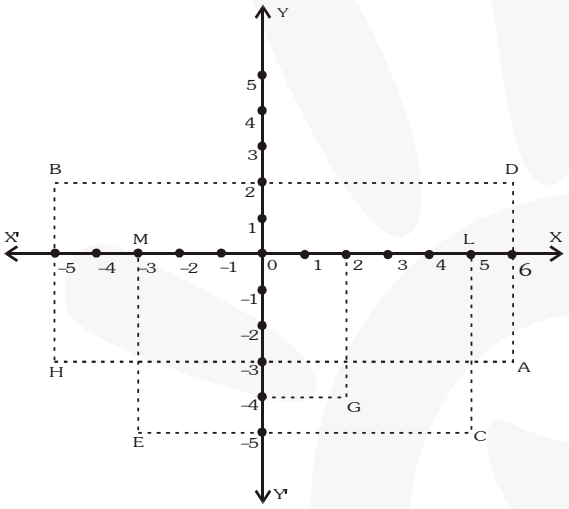
(iii) Write the name of the point where these two lines intersect.

Sol. (i) The X-axis and Y-axis

(ii) Quadrants

(iii) The origin

Q2. In the fig., 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).

(v) The abscissa of the point D.

(vi) The ordinate of the point H.

(vii) The coordinates of the point L.

(viii) The coordinates of the point M.

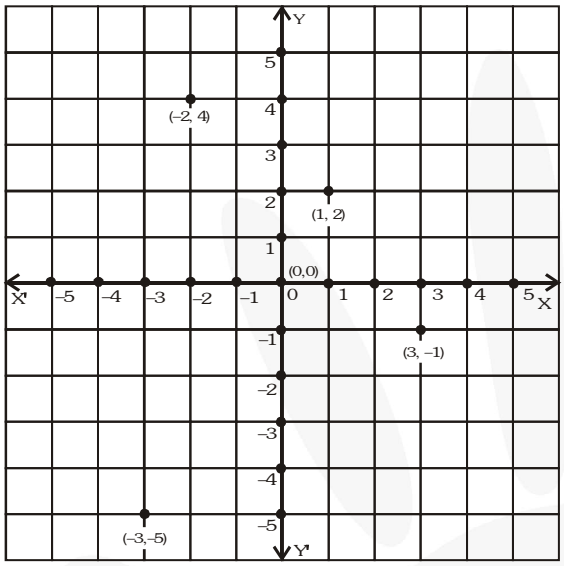
Sol. (i) (–5, 2) (ii) (5, –5) (iii) E (iv) G

(v) 6 (vi) –3 (vii) (5,0) (viii) (–3, 0)

Ex - 6.3

Q1. In which quadrant or on which axis 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.

Sol. (–2, 4) in II quadrant ; (3, –1) in IV quadrant ; (–1, 0) on x-axis ; (1, 2) in I quadrant and (–3, –5) in III quadrant as shown in figure.



Q2. Plot the points (x, y) given in the following table as points as points on the plane, choosing suitable units of distance on the axes.

x	–2	–1	0	1	3
y	8	7	–1.25	3	–1

Sol.