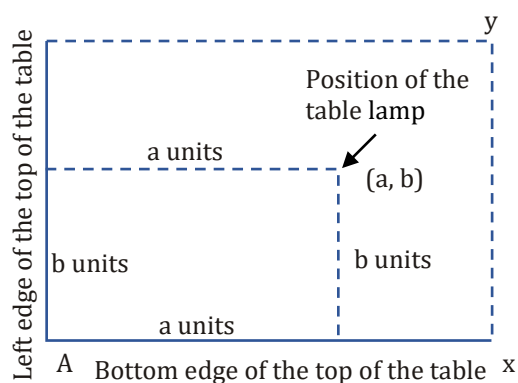


NCERT QUESTIONS WITH SOLUTIONS

EXERCISE : 3.1

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

Sol.



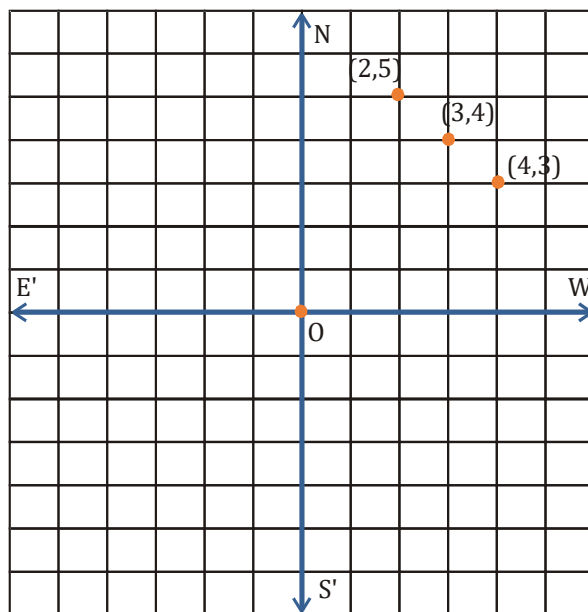
The position of the table lamp is at a distance of a units from the left edge of the top of the table and at a distance b units above the bottom edge of the top of the table. We have marked the bottom edge as the line Ax and the left edge as the line Ay . Here $Ay \perp Ax$. We measure all distances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

2. **(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 other streets of the city run parallel to these roads and are 200 m apart. There are about 5 streets in each direction. Using $1 \text{ cm} = 200 \text{ m}$, draw a model of the city on your notebook. Represent 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 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:

- How many cross-streets can be referred to as $(4, 3)$.
- How many cross-streets can be referred to as $(3, 4)$.

Sol.



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

EXERCISE : 3.2

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

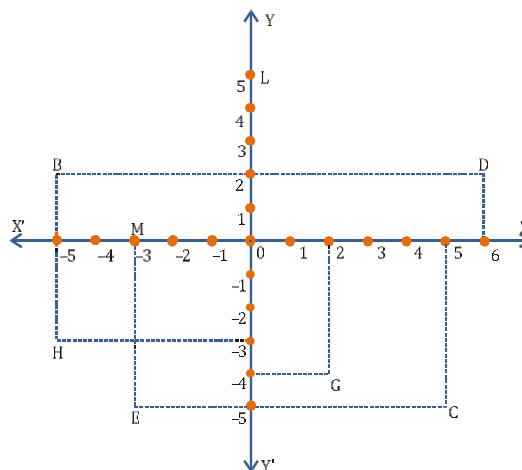
- (i) What is the name of horizontal and the vertical lines drawn to determine the position of any point in the Cartesian plane ?
- (ii) What is the name of each part of the plane formed by these two lines ?
- (iii) Write the name of the point where these two lines intersect.

Sol. (i) The x-axis and y-axis
 (ii) Quadrants
 (iii) The origin

2. 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) $(0, 5)$ (viii) $(-3, 0)$