

Q 1.

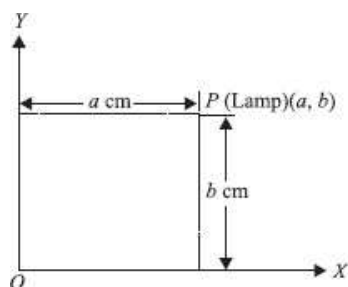
How will you describe the position of a table lamp on your study table to another person?

SOLUTION:

To describe the position of a table lamp placed on the table, let us consider the table lamp as P and the table as a plane.

Now choose two perpendicular edges of the table as the axes OX and OY. Measure the perpendicular distance 'a' cm of P (lamp) from OY. Measure the perpendicular distance 'b' cm of P (lamp) from OX.

Thus, the position of the table lamp P is described by the ordered pair (a, b).



Q 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 5 streets in each direction.

Using 1 cm = 200 m, draw a model of the city on your notebook. Represent the road/ street by single line.

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 is 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)?

SOLUTION:

- (i) A unique cross street as shown by the point A(4, 3).
- (ii) A unique cross street as shown by the point B(3, 4).

The two cross streets are uniquely found because of the two reference lines we have used for locating them.

