NCERT Class 9 Solutions: Coordinate Geometry (Chapter 3) Exercise 3.1 – Part 1

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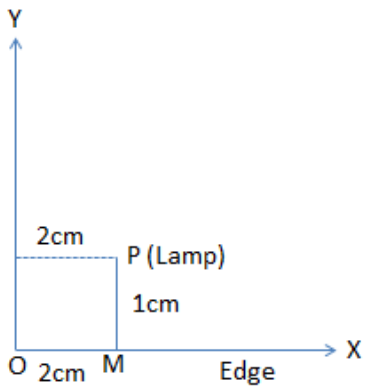
Q-1. How will you describe the position of table lame on your study table to another person?

Sol:

- Consider the lamp as a point P and table as a plane.
- Choose any two perpendicular edges of the table, say OX and OY.
- Measure the distance of the lamp i.e., P from the longer edge OX, let it be 1cm. Again, measure the distance of the lamp P from the shorter edge OY, let it be 2cm.



- So, the position of the lamp P referred to the edges OX and OY is (2,1) .

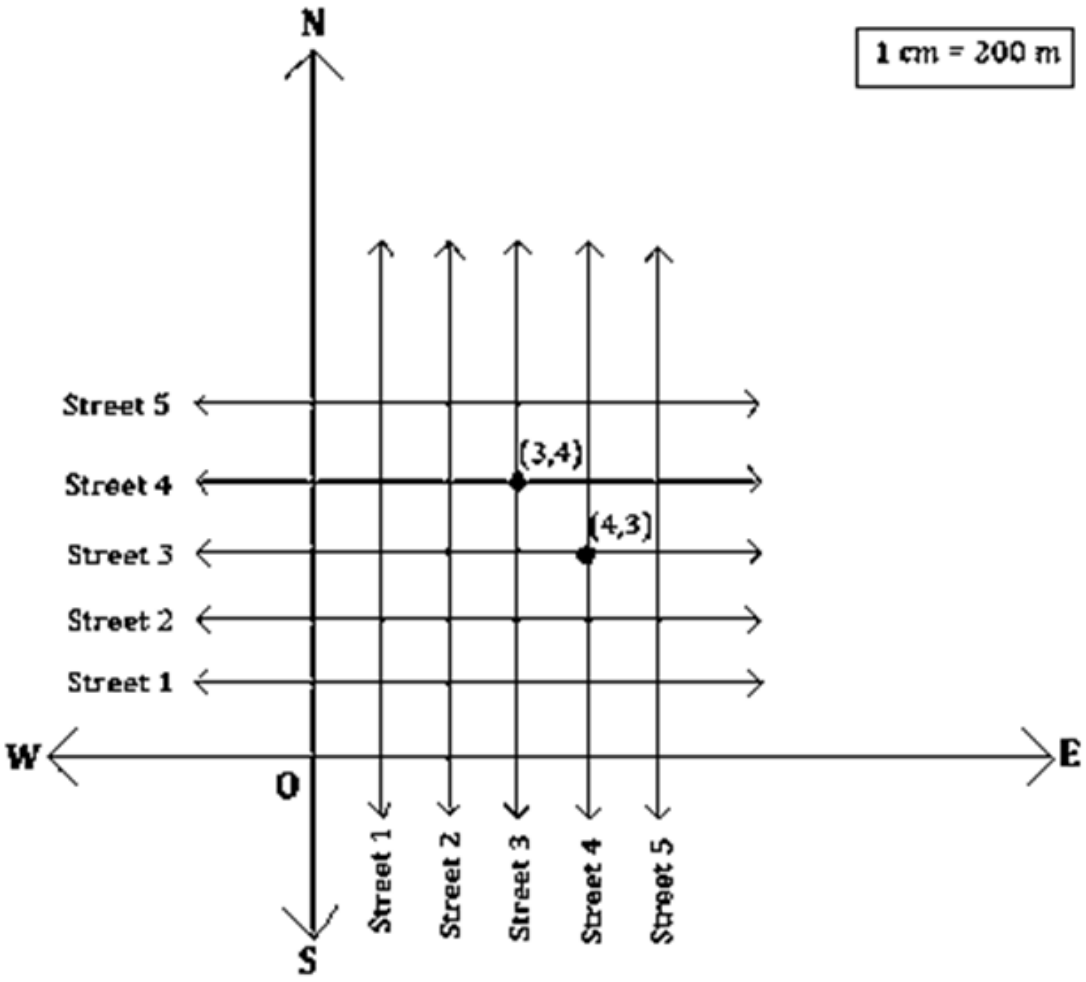
Q-2. (Street Plan) : A city has two main roads which cross each other at the centre of the city. These two roads are along the North-South direction and East-West direction. All the other streets of the city run parallel to this road and are 200m apart. There are about 5 streets in each direction. Using 1cm = 200m, draw a model of the city on your notebook. Represent the road/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^{nd} street running in the North-South direction and 5^{th} in the East-West direction meet at some crossing, then we will call this cross -street (2,5) . Using this convention, find:

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

Sol:

- 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.
- There are about 5 streets in each direction. We draw a diagram using 1cm = 200m



- A particular cross-street is made by two streets, one running in the North-South direction and another in the East-West direction.
- The 2^{nd} street running in the North-South direction and 5^{th} in the East-West direction.
- Sol: Only one street can be referred to as (4,3) as we see from the figure.
- Sol: Only one street can be referred to as (3,4) as we see from the figure.