NCERT Solutions for Class 9 MATHS – Coordinate Geometry



NTSE | CBSE | State Boards | Class 8th - 10th

1. (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 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 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 meets 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.



1. Here is only one cross-street which can be referred as (4, 3).

2. There is only one cross-street which can be referred as (3, 4).





2. 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. 1.Horizontal line is known as X-axis and vertical line is known as Y-axis.
  - 2. Each part of the plane formed by horizontal and vertical lines is known as quadrant.
  - 3. Horizontal and vertical lines intersect at the origin.
- **3.** See Fig. 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).
  - (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.

- 1. The coordinates of B = (-5,2) and B lies in II quadrant. (-Abscissa = -5, Ordinate
- 2. The coordinates of C = (5, -5).
- 3. The point identified by the coordinates (-3, -5) is
- 4. The point identified by the coordinates (2, -4) is
- 5. The abscissa of the point D = 6
- 6. The ordinate of the point H = -3.
- 7. The coordinates of the point L=(0, 5). (Lies on Y -axis)
- 8. The coordinates of the point M = (-3,0). (Lies on X -axis)
- 4. 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.

Sol.



- 1. (-2, 4) lies in II quadrant.
- 2. (3,-1) lies in IV quadrant.
- 3. (-1,0) lies on X-axis.
- 4. (1, 2) lies in I quadrant.
- 5. (-3, 5) lies in III quadrant.

### Unburden the parents of your Study Expenses

#### Govt. of India

provides you scholarship till Post Graduation studies after your crack NTSE exam



5. 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
у	8	7	-1.25	3	<ul><li>─ − 1</li></ul>

**Sol.** Let 1 unit = 1 cm, then positions of given points in the Cartesian plane are given below:



For complete NCERT Solutions visit <u>www.ntseguru.in</u> & take a free demo.

Or

Download NTSE GURU Android App for free from Google Playstore.



