

CO-ORDINATE GEOMETRY

Activity – 7

1. What we have to do?

Calculate the distance between two points whose co-ordinates are given and to verify the same using distance formula

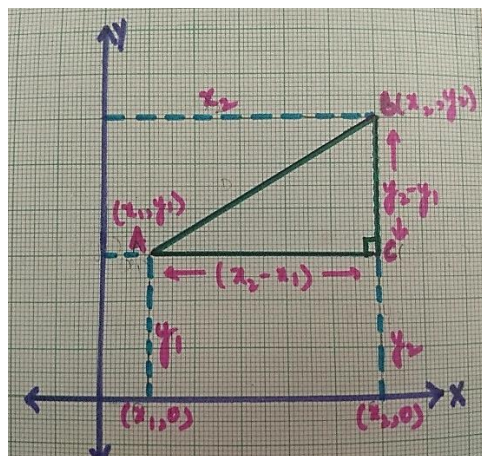
2. What is required?

White sheets, squared paper/graph paper, geometry box, sketch pens, pair of scissors, glue stick

3. Time required: 25 min

4. What do we need to know?

Knowledge of plotting points on a Cartesian system, Distance formula



5. How will you proceed?

- 1) Draw the Co-ordinate axes on the graph/squared paper
- 2) Mark two points with the co-ordinates $A(x_1, y_1)$ & $B(x_2, y_2)$
- 3) Join the points to get line segment AB
- 4) Draw perpendiculars from A and B on X-axis and Y-axis to get a right triangle.
- 5) Apply Pythagoras theorem to find AB.
- 6) Apply Distance formula to get AB.

6. What have you observed?

- 1) Length of AB by actual measurement is _____ cm.
- 2) Length of AB by Distance formula is _____ cm.
- 3) Length of AB by using Pythagoras theorem is _____ cm.

7. What have you learnt?

It is observed that length of AB = _____ cm.

8. What would you be interested in doing?

Repeat the above activity by taking $A(6,7)$ and $B(8,9)$.

Real Life Applications:

The above concept is used in Statistics, Economics, Probability distribution of wealth or income, Computer graphics, Architecture, GPS etc...
