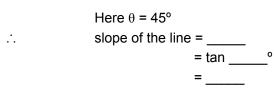




The coordinates of midpoint of seg PQ are

Angles made by the line with the positive direction of X-axis are given. Find the slope of these lines.
45°



## B) Solve the following questions. (Any one)

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- A (h, -6), B (2, 3) and C (-6, k) are the co-ordinates of vertices of a triangle whose centroid is G (1, 5). Find h and k.
- **2)** Find the centroids of the triangles whose vertices are given below. (3, -5), (4, 3), (11, -4)

## Q.3 Solve the following questions. (Any one)

- **1)** If  $\tan\theta = \frac{3}{4}$ , than find the values of  $\sec\theta$  and  $\cos\theta$ .
- 2) A storm broke a tree and the treetop rested on ground 20 m away from the base of the tree, making an angle of 60° with the ground. Find the height of the tree.
- **3)** Find the point on the X-axis which is equidistant from A (-3, 4) and B (1, -4).

## Q.4 Solve the following questions. (Any one)

- 1) Determine whether the points are collinear. A (1, -3), B (2, -5), C (-4, 7)
- 2) Find the equation of the line passing through the point of intersection of the line 4x + 3y + 2 = 0 and 6x + 5y + 6 = 0 and the point of intersection of the lines 4x 3y 17 = 0 and 2x + 3y + 5 = 0.

## Q.5 Solve the following questions. (Any one)

- Find the coordinates of point P if P divides the line segment joining the points. A (-1,7) and B (4,-3) in the ratio 2 : 3.
- 2) Show that A (-4, -7), B (- 1, 2), C (8, 5) and D (5, 4) are the vertices of a rhombus ABCD.

(2)

(3)

(4)

(3)