



Bivash Sir

Coordinate Geometry

Std-X

- ① The line joining the pts. $(2,1)$ & $(5,-8)$ is bisected by the points P & Q. If the point P lies on the line $2x - y + k = 0$, find the value of k. Ans: $k = -13$
- ② If the coordinates of the mid pts. of the sides of a Δ are $(1,1)$, $(2,-3)$ & $(3,4)$. Find its centroid. Ans: $(2, \frac{2}{3})$
- ③ Find the ratio in which the point $P(x,2)$, divides the line segment joining the points $A(12,5)$ & $B(4,-3)$. Also find the value of x . Ans:
- ④ In the given fig, ΔABC is an equilateral Δ of side 3 units. Find the coordinates of the other two vertices. Ans $(5,0)$ & $(\frac{7}{2}, \frac{3\sqrt{3}}{2})$
- ⑤ Find the ratio in which the line segment joining the pts. $A(3,-3)$ & $B(-2,7)$ is divided by x -axis. Also find the coordinates of the pt. of division. Ans: $3:7$, $(\frac{3}{2}, 0)$
- ⑥ The mid pt. of the line segment joining the pts ~~$P(3,6)$ & $Q(5,3)$~~ $A(2a,4)$, $B(-2,3b)$ is $(1, 2a+1)$. Find the values of a & b .
- ⑦ Find the values of K if the points.
 $A(k+1, 2k)$, $B(3k, 2k+3)$ & $C(5k-1, 5k)$ are collinear. Ans $K = 2, \frac{1}{2}$.