

X - Mathematics Assignment No-05 - Co-ordinate geometry.

- Q1. In what ratio does the point $(3, 3)$ divide the line segment joining the points $(2, 4)$ and $(4, 2)$?
- Q2. In what ratio does the point $(3, -2)$ divide the line segment joining the points $A(2, -1)$ and $B(7, -6)$?
- Q3. In what ratio is the line segment joining the points $A(-3, 2)$ and $B(5, 6)$ divided by y -axis ?
[Hint: let ratio be $k:1$, Find Co-ordinates]
[then Put x -coordinate = 0, find k]
- Q4. Find the ratio in which the join of $A(5, 6)$ and $B(7, -8)$ is divided by x -axis
- Q5. Find the ratio in which the line $3x + y = 9$ divides the segment joining the points $(1, 3)$ and $(2, 7)$

Q6. By using section formula, show that the points $(1, 1)$, $(3, -2)$, and $(-1, 4)$ are collinear.

Q7. Find the co-ordinates of the centre of a circle of the largest chord whose co-ordinates are $A(-1, 2)$ and $B(5, 6)$

Q8. Find the co-ordinates of a point where the diagonals of a parallelogram formed by joining the points $A(6, 1)$, $B(8, 2)$, $C(9, 4)$ and $D(7, 3)$ meet.

Q9. Find the ratio in which the line $x - y = 2$ divides the line segment joining the points $(3, -1)$ and $(8, 9)$

Q10. Find the centre of a circle passing through the points $(6, -6)$, $(3, -7)$ and $(3, 3)$

ANSWERS:

(Q1) 1:1	(Q5) 3:4	(Q9) 2:3
(Q2) 1:4	(Q6) —	(Q10) $(3, -2)$
(Q3) 3:5	(Q7) $(2, 4)$	
(Q4) 3:4	(Q8) $(\frac{15}{2}, \frac{5}{2})$	