X - Mathematics Assignment No-02- Co-ordinate Geometry

Q1 Prove that the points (-2,5), (0,1) and (2,-3) are collinear.

Q2. Show that the points A(0,0), B(0,5) C(6,5), D(6,0) form a rectangle.

Q3. Show that the points A(3,2), B(0,5) C(-3,2) and D(0,-1) are the vertices of a square.

Q4. Show that the points A(2,1), B(5,4) C(4,7) and D(1,4) are the vertices of a parallelogram.

Q5. Prove that the points A(3,0); B(6,4) and C(-1,3) are the vertices of a right angled triangle. Are these vertices of an isosceles triangle also?

Q6. Show that the following points do not form any triangle.

A(4,2); B(7,5); C(9,7)

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Q7. Find the co-ordinates of the point on the axis of y which is equidistant from the points (-1, 2) and (3, 4)

Q8. The distance PQ between the points P(5, -9) and Q(11, y) is 10 units. Find the value of y.

Q9. If two vertices of an equilateral triangle are A(0,0); B(3,0), find the third vertex.

Q10. Find the point which is equidistant from the points A(6, 6); B(-1, 7); C(5, 7)

ANSWERS

(Q7) (0, 5)

(Q10) (2, 3)

(Q8) -17 OR -1

(Q9) $\left(\frac{3}{2}, \frac{3\sqrt{3}}{2}\right)$ OR $\left(\frac{3}{2}, -\frac{3\sqrt{3}}{2}\right)$