Coordinate Geometry : Worksheet -10

1. The 1st and 2nd points of trisection of the join of (–2, 11), (–5, 2) are [ ]

   a] (–3, –8), (4, 5) b] (3, –8), (4, –5)

   c] (3, 8), (4, 5) d] (–3, 8), (–4, 5)

2. The number of points equidistant to two given distinct points is [ ]

   a] 0 b] 1 c] Infinite d] None

3. The centroid of a triangle formed by (7, p), (q, –6), (10, 10) is (6, 4), then (p, q) = [ ]

   a] (0, 1) b] (8, 1) c] (1, 2) d] (3, 4)

4. The lines, $x = -2$ and $y = 3$ intersect at the point [ ]

   a] $(-2, 3)$ b] $(2, -3)$ c] $(3, -2)$ d] $(-3, 2)$

5. If A $(2, 2)$, B $(6, 3)$ and C $(4, 11)$ are vertices of a triangle ABC and D, E are the mid points of $\overline{BC}$ and $\overline{CA}$ respectively, then the length of $\overline{DE}$ is [ ]

   a] $\sqrt{17}$ b] $\frac{2}{\sqrt{17}}$ c] $\frac{\sqrt{17}}{2}$ d] 2

6. If A, B, C are collinear points such that A = (3, 4), C = (11, 10) and AB = 2.5, then B = [ ]

   a] (5, 2) b] (2, 5) c] $\left(5, \frac{11}{2}\right)$ d] None

7. The points (8, 4) divides the line joining $(5, -2)$ and (9, 6), in the ratio [ ]

   a] 3 : 2 b] 2 : 3 c] 3 : 1 d] 1 : 3

8. If the points (k, 1), (5, 5) and (10, 7) are collinear, then k is [ ]

   a] 5 b] 8 c] – 5 d] – 8