CBSE TEST PAPER
Class 10 mathematics
Ch. **Co-ordinate**

Q1. Find the distance between the following points:

(a) A(3 , 5) and B(8 , – 7)   (b)P(a + b , a – b) and Q (a– b , –a – b)

Q2. Find the value of x for which the distance between points A(x, 7) and B (–2, 3) is $4\sqrt5$ units.

Q3. If the points (3, 2) and (2, –3) are equidistant from points (x, y) show that x + 5y = 0.

Q4. Show that the following points are collinear:

(a) (–5, 6), (–1, 2) and (2, –1)

(b) (4, 3) , (5,1) and (1, 9)

Q5. Show that following points are vertices of right triangle. Also, name the right angle.

(a)(4, 4) , (3 , 5) , (–1 ,1)

(b)(–2, 3) , (8, 3) , (6, 7)

Q6. Show that following points are vertices of a rectangle:

(a) (2 , –2) , (8, 4) , (5, 7) , (– 1, 1)

(b)(–4 , –1) , (–2 , 4) , (4, 0) , (2, 3)

Q7. Show that following points are vertices of a square:

(a) (0 , –1) , (2, 1) , (0, 3) , (–2, 1)

(b)(0, 1) , (1, 4) , (4,3) , (3, 0)

Q8. Show that following points are vertices of rhombus:

(a)(0, 5) , (–2, –2) , (5 , 0) , (7, 7)   (b)(2, –1) , (3, 4) , (–-2, 3) , (–3 , –2)

Q9. Show that the points (a, a) , (–a, –a) and (–$\sqrt3$ a , $\sqrt3$ a) form an equilateral triangle.

Q10. Find the co-ordinates of circumcenter of a △ ABC where A(1, 2) ,B (3, –4) and C (5, –6).

Q11. Find radius of the circle, the co-ordinates of the ends of whose diameter are (–1, 2) and (3, –4).

Q12. (a) Find the point on x-axis, which is equidistant from points (7, 6) and (9 , 4).

(b)Find the point on y-axis, which is equidistant from points (5, 2) and (–4 , 3).

Q13. A point P is at a distance of$\sqrt{10}$ from the point (4, 3). Find the co-ordinates of P, if its ordinate is twice its abscissa.

Q14. A line of length 10 units has (–-2, 3) as one of its end points. If the ordinate of the other end be 9, Show that its abscissa is 6 or–10.

Q15. The opposite angular points of a square be (3, 4) and (1, –1). Find the co-ordinates of the remaining angular points.

Answers

Ans1 . (a) 13, (b) $2\sqrt{a^2 + b^2}$ Ans2. 6 or – 10 Ans 10. (11, 2)   Ans11.$\sqrt{13}$ Ans12. (a) (3, 0)(b) (0, 15)Ans13. (3, 6) Ans15. (9/2 , 1/2) and (–1/2 , 5/2)