Mental Ability

Ganit Bodh Series

Self Evaluation Test -19 (Co-ordinate Geometry)

1. If three consecutive vertices of a rectangle are (0, 0), (2, 0), (0, 3), then the co-ordinates of the fourth vertex is
   a) (-2,-3) b)(-2,3)
   c) (2,3) d)(2,3)

2. The triplet of points (2, 4), (0, 1), (4, 7) are
   a) collinear.
   b) the vertices of a right angled triangle.
   c) the vertices of an isosceles triangle.
   d) the vertices of an equilateral triangle.

3. At what point the origin be shifted if the co-ordinates of a point (4, 5) become (–3, 9)?
   a) (-7,-4) b) (7,-4)
   c) (7,4) d) None

4. The line segment joining A (6, 3) to B (–1, –4) is doubled in length by having half its length added to each end. Find the co-ordinates of the new ends.
   a) (-9/2,15/2) & (19/2,15/2)
   b) (9/2,-15/2) & (19/2,-15/2)
   c) (-9/2,-15/2) & (19/2,13/2)
   d) None

5. Three consecutive vertices of a rhombus are (5, 3), (2, 7) and (–22, 4).Then the fourth vertex is
   a)(19,0) b)(29,0)
   c)(-19,0) d) None

6. The co-ordinates of points P, Q, R and S are (–3, 5), (4, –2), (p, 3p) and (6, 3) respectively and the areas of Δs PQR and QRS are in ratio 2 : 3. Then value of p will be
   a) 2 b) 4
   c) -3 d) None

7. The co-ordinates of the centroid of the triangle whose vertices are (4, –2), (–2, 4) and (5, 5) is
   a) (5,7) b)(-3,4)
   c) (6,-9) d) None

8. Three points A (6, 6), B (2, 3), C (4, 7) are
   a) collinear.
   b) the vertices of a right angled triangle.
   c) the vertices of an isosceles triangle.
   d) the vertices of an equilateral triangle.

9. The co-ordinates of the point which divides the join of P(5, –2) and Q(9, 6) internally in ratio 3:1is
   a) (8,4) b)(7,2)
   c) (11/2,10) d) (-6,-4)

10. The condition that the point (*x, y*) may lie on the line joining the points (3, 4) and (–5, –6) is
    a) 5x- 4y =1 b)5 x -4y +1= 0
    c) 5x - 4y-1= 0 d) None

11. The area of quadrilateral formed by the vertices (1, 1), (7, –3), (12, 2), (7, 21) is
    a) 123 b)264
    c) 132 d)213

12. If the area of the quadrilateral whose angular points taken in order are (1, 2), (–5, 6), (7, –4), (K, –2) be zero, then the value of K =
    a) 3. b) 4
    c) 2 d) none

13. The ratio in which the point P (–7, 3) divide the join of A(–2, 4) and B(3, 5) is
    a) 1:2 b) 3:2
    c) 9:4 d) 5:9

14. The ratio in which the segment joining the points (5, 6) and (2, –3) is divided by X-axis is
    a) 2:1 externally b) 2:1 internally
    c) 2:3 internally d) 2:3 externally

15. The area of triangle with vertices (–2, 1), (2, –3), (4, 4) is
    a) 36 b)18
    c) 9 d) 6

16. The points A (–2, 3), B (3, 4), C (*x, y*) form an equilateral triangle. then the value of *x* will be
    a) (- 3,4) b) (-4,0)
    c) (-3,-3) d) None

17. The coordinate of the point bisecting the line joining of (4, –5) and (12, 11) is
    a) (8,3) b)(8,-3)
    c) (8,-8) d)(4,3)

18. If A(–1, 3), B (1, –1) and C (5, 1) are the vertices of a triangle, then the length of median throught vertex A is
    a) 4 b) 6
    c) 5 d) 3

19. Three points A (8, 2), B (5, –3), C(0, 0) are
    a) the vertices of an isosceles triangle.
    b) the vertices of a right angled triangle.
    c) collinear.
    d) the vertices of an equilateral triangle.

20. If (4, 5), (4, –3) and (–2, 3) are the mid-points of the sides of triangle, then the co-ordinates of the centroid of the triangle is
    a)(2,2) b)(2,5/2)
    c)(2,5/3) d) (3,5/3)

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