

# CHAPTER-7 | Coordinate Geometry

## QUIZ PART-03

1. The distance between the points (2, 3) and (4, 1) is:  
A.  $\sqrt{5}$   
B. 2 units  
C.  $\sqrt{10}$   
D.  $\sqrt{8}$  (A)

**Explanation:** The distance formula is  $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} = \sqrt{(4 - 2)^2 + (1 - 3)^2} = \sqrt{4 + 4} = \sqrt{8}$ .

2. The distance between the points (-5, 7) and (-1, 3) is:  
A.  $\sqrt{16}$   
B. 5 units  
C.  $\sqrt{41}$   
D.  $\sqrt{32}$  (C)

**Explanation:** Using the distance formula,  $\sqrt{((-1 + 5)^2 + (3 - 7)^2)} = \sqrt{(4^2 + (-4)^2)} = \sqrt{(16 + 16)} = \sqrt{32}$ .

3. The midpoint of the line joining the points A(2, 4) and B(6, 8) is:  
A. (4, 6)  
B. (3, 6)  
C. (2, 5)  
D. (5, 5) (A)

**Explanation:** The midpoint formula is  $((x_1 + x_2)/2, (y_1 + y_2)/2) = ((2 + 6)/2, (4 + 8)/2) = (4, 6)$ .

4. The distance from the point P(2, -3) to the origin is:  
A. 5 units  
B.  $\sqrt{13}$  units  
C. 3 units  
D.  $\sqrt{14}$  units (B)

**Explanation:** The distance from the origin O(0, 0) to P(2, -3) is  $OP = \sqrt{(2 - 0)^2 + (-3 - 0)^2} = \sqrt{(4 + 9)} = \sqrt{13}$ .

5. The distance between the points (0, 0) and (6, 8) is:  
A. 10 units  
B.  $\sqrt{10}$  units  
C. 12 units  
D. 14 units (A)

**Explanation:** Distance =  $\sqrt{((6 - 0)^2 + (8 - 0)^2)} = \sqrt{(36 + 64)} = \sqrt{100} = 10$ .

6. The distance between (2, 1) and (-3, -4) is:  
A.  $\sqrt{50}$   
B.  $\sqrt{34}$   
C. 7 units  
D. 8 units (B)

**Explanation:** Distance =  $\sqrt{((2 + 3)^2 + (1 + 4)^2)} = \sqrt{(5^2 + 5^2)} = \sqrt{(25 + 25)} = \sqrt{50}$ .

7. The midpoint of the segment joining A(-1, 2) and B(3, -2) is:  
A. (1, 0)  
B. (0, 1)  
C. (2, 0)  
D. (1, -1) (D)

**Explanation:** Midpoint =  $((-1 + 3)/2, (2 + (-2))/2) = (1, 0)$ .

8. The distance between P(4, 3) and Q(1, 1) is:  
A. 3 units  
B.  $\sqrt{10}$  units  
C. 5 units  
D.  $\sqrt{13}$  units (D)

**Explanation:** Distance =  $\sqrt{((4 - 1)^2 + (3 - 1)^2)} = \sqrt{(9 + 4)} = \sqrt{13}$ .

9. The distance from the point (5, 7) to the x-axis is:  
A. 7 units  
B. 5 units  
C. 0 units  
D. 3 units (A)

**Explanation:** The distance from the x-axis is the absolute value of the y-coordinate, so it is 7 units.

10. The distance between the points (-3, 1) and (2, -3) is:  
A.  $\sqrt{29}$   
B. 5 units  
C. 6 units  
D.  $\sqrt{25}$  (A)

**Explanation:** Distance =  $\sqrt{((2 - (-3))^2 + (-3 - 1)^2)} = \sqrt{(5^2 + (-4)^2)} = \sqrt{(25 + 16)} = \sqrt{41}$ .