Chpater - 7

Coordinate Geometry

1. The distance between (2, 3) and (5, 7) is:

A. 3

B. 4

C. 5

D. 6

Answer: D. 6

2. The coordinates of the midpoint of the line segment joining the points (2, 3) and (6, 7) are:

A. (4, 5)

B. (5, 5)

C. (4, 6)

D. (5, 6)

Answer: A. (4, 5)

3. The point of intersection of the x-axis and y-axis is:

A. (1, 1)

B. (0, 1)

C. (1, 0)

D. (0, 0)

Answer: D. (0, 0)

4. The point (–5, –3) lies in the:

A. First quadrant

B. Second quadrant

C. Third quadrant

D. Fourth quadrant

Answer: C. Third quadrant

5. The point (–3, 5) lies in the:

A. First quadrant

B. Second quadrant

C. Third quadrant

D. Fourth quadrant

Answer: B. Second quadrant

6. The coordinates of a point on the y-axis is:

A. (0, 1)

B. (0, –1)

C. (1, 0)

D. (–1, 0)

Answer: B. (0, –1)

7. The coordinates of a point on the x-axis is:

A. (1, 0)

B. (0, 1)

C. (0, –1)

D. (–1, 0)

Answer: A. (1, 0)

8. The point (–4, y) lies on the x-axis if:

A. y = 0

B. y = 4

C. y = –4

D. y = 1

Answer: A. y = 0

9. The point (x, 4) lies on the y-axis if:

A. x = 4

B. x = –4

C. x = 0

D. x = 1

Answer: C. x = 0

10. The point (x, y) lies in the third quadrant if:

A. $x > 0$ and $y > 0$

B. $x < 0$ and $y > 0$

C. $x < 0$ and $y < 0$

D. $x > 0$ and $y < 0$

Answer: C. $x < 0$ and $y < 0$

11. The coordinates of the point which divides the line segment joining (–1, –5) and (9, 15) in the ratio 3:2 are:

A. (2, 3)

B. (3, 4)

C. (4, 3)

D. (3, 2)

Answer: A. (2, 3)

12. The point (−3, 4) lies in which quadrant?

A. First quadrant

B. Second quadrant

C. Third quadrant

D. Fourth quadrant

Answer: C. Third quadrant

13. The coordinates of the point which divides the line segment joining (−4, −2) and (−8, −6) in the ratio 3:1 are:

A. (−6, −3)

B. (−5, −2)

C. (−2, −6)

D. (−3, −5)

Answer: A. (−6, −3)

14. The coordinates of the point which divides the line segment joining (−2, 3) and (4, −5) in the ratio 2:3 are:

A. (2, −1)

B. (3, −2)

C. (−2, 3)

D. (−1, 2)

Answer: A. (2, −1)

15. The point (–3, –5) lies in which quadrant?

A. First quadrant

B. Second quadrant

C. Third quadrant

D. Fourth quadrant

Answer: D. Fourth quadrant

16. The distance between the points (–1, 2) and (3, –4) is:

A. 5

B. 6

C. 7

D. 8

Answer: C. 7

17. The coordinates of the point which divides the line segment joining (2, –3) and (–4, 5) in the ratio 3:4 are:

A. (–3, 2)

B. (–2, 3)

C. (3, –2)

D. (2, –3)

Answer: B. (–2, 3)

18. The point (–2, 0) lies on which axis?

A. x-axis

B. y-axis

C. origin

D. none of the above

Answer: A. x-axis19. The point (0, –4) lies on which axis?

A. x-axis

B. y-axis

C. origin

D. none of the above

Answer: B. y-axis

20. The point (–5, 0) lies on which axis?

A. x-axis

B. y-axis

C. origin

D. none of the above

Answer: A. x-axis

21. The point (0, 0) is called:

A. origin

B. point of intersection

C. point of origin

D. none of the above

Answer: A. origin

22. The point (–2, –2) lies in which quadrant?

A. First quadrant

B. Second quadrant

C. Third quadrant

D. Fourth quadrant

Answer: C. Third quadrant

23. The point (4, –3) lies in which quadrant?

A. First quadrant

B. Second quadrant

C. Third quadrant

D. Fourth quadrant

Answer: D. Fourth quadrant

24. The point (–3, 4) lies in which quadrant?

A. First quadrant

B. Second quadrant

C. Third quadrant

D. Fourth quadrant

Answer: A. First quadrant

25. The point (5, 0) lies on which axis?

A. x-axis

B. y-axis

C. origin

D. none of the above

Answer: A. x-axis

26. The point (0, 5) lies on which axis?

A. x-axis

B. y-axis

C. origin

D. none of the above

Answer: B. y-axis

27. The coordinates of the point which divides the line segment joining (–5, –8) and (–2, –1) in the ratio 2:3 are:

A. (–3, –2)

B. (–2, –3)

C. (–5, –6)

D. (–6, –5)

Answer: D. (–6, –5)

28. The coordinates of the point which divides the line segment joining (–3, –4) and (5, 6) in the ratio 1:2 are:

A. (3, 2)

B. (2, 3)

C. (–2, –2)

D. (–2, –3)

Answer: B. (2, 3)

29. The coordinates of the midpoint of the line segment joining (–2, –5) and (4, 7) are:

A. (1, 1)

B. (1, 2)

C. (–1, –2)

D. (2, 1)

Answer: D. (2, 1)

30. The distance between the points (–2, –3) and (4, 5) is:

A. 10

B. 9

C. 8

D. 7

Answer: A. 10

31. The distance between the points (–5, –6) and (–2, –1) is:

A. √30

B. √29

C. √28

D. √27

Answer: B. √29

32. The distance between the points (–3, 5) and (4, –2) is:

A. √74

B. √72

C. √70

D. √68

Answer: A. √74

33. The coordinates of the point which divides the line segment joining (–2, 5) and (3, –4) in the ratio 3:2 are:

A. (1, –1)

B. (–1, 1)

C. (–1, –1)

D. (1, 1)

Answer: A. (1, –1)

34. The coordinates of the point which divides the line segment joining (–3, 4) and (5, –6) in the ratio 2:3 are:

A. (2, –2)

B. (–2, 2)

C. (2, 3)

D. (3, 2)

Answer: C. (2, 3)

35. The coordinates of the point which divides the line segment joining (–2, 3) and (4, –5) in the ratio 3:4 are:

A. (–1, 2)

B. (2, –1)

C. (1, –2)

D. (–2, 1)

Answer: A. (–1, 2)

36. The coordinates of the point which divides the line segment joining (–2, 3) and (4, –5) in the ratio 3:4 are:

A. (–1, 2)

B. (2, –1)

C. (1, –2)

D. (–2, 1)

Answer: A. (–1, 2)

37. If the point (3, 4) lies on the graph of the equation 3x + ay = 12, then the value of a is:

A. 1

B. 2

C. 3

D. 4

Answer: A. 1

38. Find the distance between the points (–2, –1) and (4, 5).

A. 4 units

B. 6 units

C. 8 units

D. 10 units

Answer: C. 8 units

39. The mid-point of the line segment joining the points A (2, 3) and B (–2, 1) is:

A. (0, 2)

B. (2, 0)

C. (0, 1)

D. (1, 0)

Answer: A. (0, 2)

40. Find the coordinates of the point which divides the line segment joining (–3, 7) and (2, –3) in the ratio 2:3.

A. (–1, 3)

B. (3, –1)

C. (1, –3)

D. (–3, 1)

Answer: A. (–1, 3)

41. Find the coordinates of the point which divides the line segment joining (–1, 2) and (3, 8) in the ratio 1:2.

A. (1, 4)

B. (2, 5)

C. (3, 6)

D. (4, 7)

Answer: A. (1, 4)

42. Find the coordinates of the point which divides the line segment joining (–2, 7) and (3, –5) in the ratio 3:4.

A. (1, –2)

B. (–1, 2)

C. (2, –1)

D. (–2, 1)

Answer: B. (–1, 2)

43. Find the value of k if the points (k, –1), (4, 3) and (–2, 5) are collinear.

A. 1

B. 2

C. 3

D. 4

Answer: A.1

44. Find the slope of the line passing through the points (–2, 3) and (4, –5).

A. –2

B. –1/2

C. 1/2

D. 2

Answer: A. –2

45. Find the slope of the line passing through the points (–1, 2) and (3, 6).

A. 1

B. 2

C. 3/2

D. 4/3

Answer: C. 3/2

46. Find the slope of the line passing through the points (–5, 7) and (–5, –3).

A. 0

B. 1

C. undefined

D. infinity

Answer: C. undefined

47. Find the slope of the line passing through the points (0, 0) and (–5, –3).

A. 1/2

B. 2/5

C. 3/5

D. 5/3

Answer: B. 2/5

48. Find the slope of the line passing through the points (−4, −3) and (−4, 5).

A. 0

B. 1

C. undefined

D. infinity

Answer: C. undefined

49. Find the slope of the line passing through the points (2, 3) and (−4, 9).

A. −6/7

B. −2/3

C. 2/3

D. 6/7

Answer: A. −6/7

50. Find the slope of the line passing through the points (−1, 2) and (−1, −3).

A. 0

B. 1

C. undefined

D. infinity

Answer: C. undefined