

- Q1. Find the coordinates of the point which divides the line segment joining the points $(4, -3)$ and $(8, 5)$ in the ratio $3 : 1$.
Ans. $(7, 3)$
- Q2. Find the coordinates of the point which divides the line segment joining the points $(-1, 7)$ and $(4, -3)$ in the ratio $2 : 3$.
Ans. $(1, 3)$
- Q3. Find the coordinates of the point which divides the line segment joining the points $(1, 3)$ and $(2, 7)$ in the ratio $3 : 4$.
Ans. $(\frac{10}{7}, \frac{33}{7})$
- Q4. If A and B are $(-2, -2)$ and $(2, -4)$, respectively, find the coordinates of P such that $AP = \frac{3}{7} AB$ and P lies on the line segment AB.
Ans. $(-\frac{2}{7}, -\frac{20}{7})$
- Q5. If A and B are $(1, 2)$ and $(2, 3)$, respectively, find the coordinates of G such that $AG = \frac{4}{7} AB$ and G lies on the line segment AB.
Ans. $(\frac{11}{7}, \frac{18}{7})$
- Q6. In which quadrant does the point P that divides the line segment joining the points A $(2, -5)$ and B $(5, 2)$ in the ratio $2 : 3$ lies?
Ans. $P(\frac{16}{5}, -\frac{11}{5})$ IV Quadrant
- Q7. Find the coordinates of the points of trisection of the line segment joining $(4, -1)$ and $(-2, -3)$.
Ans. $(2, -\frac{5}{3})$ and $(0, -\frac{7}{3})$
- Q8. Find the coordinates of the points of trisection of the line segment joining $(2, -2)$ and $(-7, 4)$.
Ans. $(-1, 0)$ and $(-4, 2)$
- Q9. Find the ratio in which the line segment joining the points A $(-3, 10)$ and B $(6, -8)$ is divided by $(-1, 6)$. Ans. $2 : 7$
- Q10. Find the ratio in which the line segment joining the points A $(-6, 10)$ and B $(3, -8)$ is divided by $(-4, 6)$. Ans. $2 : 7$
- Q11. Find the ratio in which the line segment joining the points $A(\frac{1}{2}, \frac{3}{2})$ and $B(2, -5)$ is divided by $(\frac{3}{4}, \frac{5}{12})$. Ans. $1 : 5$
- Q12. Find the ratio in which the line segment joining the points A $(1, -5)$ and B $(-4, 5)$ is divided by x-axis. Ans. $1 : 1$
- Q13. Find the ratio in which the line segment joining the points A $(1, -3)$ and B $(4, 5)$ is divided by x-axis. Ans. $3 : 5$
- Q14. Find the ratio in which the line segment joining the points A $(5, -6)$ and B $(-1, -4)$ is divided by y-axis. Ans. $5 : 1$
- Q15. Find the ratio in which the line segment joining the points A $(-2, -3)$ and B $(3, 7)$ is divided by y-axis. Ans. $2 : 3$
- Q16. Determine the ratio in which the line $3x + y - 9 = 0$ divides the line segment joining the points $(1, 3)$ & $(2, 7)$.
Ans. $3 : 4$
- Q17. Determine the ratio in which the line $2x + y - 4 = 0$ divides the line segment joining the points $(2, -2)$ & $(3, 7)$.
Ans. $2 : 9$
- Q18. Find the area of the rhombus if its vertices are $(3, 0)$, $(4, 5)$, $(-1, 4)$ & $(-2, -1)$ taken in order. Ans. 24 sq.units
- Q19. Find the area of the rhombus if its vertices are $(2, -1)$, $(3, 4)$, $(-2, 3)$ & $(-3, -2)$ taken in order. Ans. 24 sq.units
- Q20. The coordinates of the mid-point of the line segment joining the points $(3p, 4)$ and $(-2, 2q)$ are $(5, p)$. Find the values of p and q.
Ans. $p = 4, q = 2$
- Q21. Find the coordinates of the points which divides the line segment joining A $(-2, 2)$ & B $(2, 8)$ into four equal parts.
Ans. $(-1, \frac{7}{2}), (0, 5), (1, \frac{13}{2})$
- Q22. Find the coordinates of the points which divides the line segment joining A $(-4, 0)$ & B $(0, 6)$ into four equal parts.
Ans. $(-3, \frac{3}{2}), (-2, 3), (-1, \frac{9}{2})$
- Q23. If the points $(6, 1)$, $(8, 2)$, $(9, 4)$ & $(p, 3)$ are the vertices of a parallelogram, taken in order, find the value of p.
Ans. $p = 7$
- Q24. If $(1, 2)$, $(4, y)$, $(x, 6)$ & $(3, 5)$ are the vertices of a parallelogram taken in order, find x and y. Ans. $x = 6, y = 3$
- Q25. If $(3, 3)$, $(6, y)$, $(x, 7)$ & $(5, 6)$ are the vertices of a parallelogram taken in order, find x and y. Ans. $x = 8, y = 4$