COORDINATE GEOMETRY

MCQ

(PULKIT JAWAL)

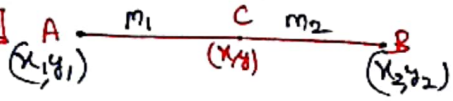
Q1. The mid point of $(3m, 4)$ & $(-2, 2n)$ is $(2, 6)$ then value of $(m+n)$=??
(a) 4 (b) 2 (c) 8 (d) 6 (e) None of these.

Q2. In the coordinates of the mid point of the line segment joining the points A(-5, 4) & B(7, -8), the abscicca is → (a) -1 (b) -2 (c) 2 (d) None of these

Q3. If the coordinates of the mid point of line joining the points C(2m+1, 4) & E(5, n-1) are (2m, n) then (m-n) is → (a) 0 (b) -6 (c) 3 (d) None

Q4. The value of $(a \div b)$ if the midpoint of the line segment joining A(2a, 4) & B(-2, 3b) is M(1, 2a+1). (a) 2 (b) -2 (c) 4 (d) 1 (e) None

Q5. The coordinates of the point which divides the line segment joining the points A(-5, 11) & B(4, -7) are in the ratio of 7:2. are – (a) (-3, 2) (b) (2, 3) (c) (2, -3)

Q6. 

In this figure, the coordinates of point C(x, y) is given by

(a) $\left(\frac{m_2x_2 + m_1x_1}{m_1+m_2}, \frac{m_2y_2+m_1y_1}{m_1+m_2}\right)$ (b) $\left(\frac{-m_1x_2 - m_2x_1}{-m_1-m_2}, \frac{-m_1y_2-m_2y_1}{-m_1-m_2}\right)$ (c) $\left(\frac{m_1x_1 + m_2x_2}{m_1+m_2}, \frac{m_1y_1+m_2y_2}{m_1+m_2}\right)$

Q7. The ratio in which the point (11, 15) divides the line segment joining the point (15, 5) & (7, 20) is (a) -2:1 (b) -1:2 (c) -1:4 (d) 4:2

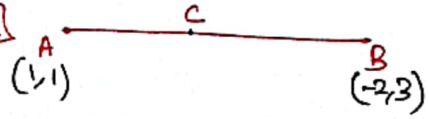
Q8. The distance of the point (6, -5) from the origin is → (a) 61 (b) $\sqrt{61}$ (c) 36

Q9. The coordinates of the point A dividing the line segment joining the points P(1, 3) & Q(4, 6) internally in the ratio 2:1 is (a) (5, 3) (b) (3, 0) (c) (3, 5)

Q10. The ratio in which 'y' axis divides the line segment joining the points (5, -6) & (-1, -4) is – (a) 1:5 (b) 5:1 (c) 2:1 (d) None

Q11. The ratio in which 'x axis' divides the line segment joining A(1, -5) & B(-4, 5) is
(a) 2:1 (b) 1:2 (c) 5:5 (d) None of these

Q12. The point R(-4, 1) divides the line segment joining the points A(2, 2) & B in the ratio of 3:5. Then ordinate of point B is. (a) -14 (b) -6 (c) 6 (d) 14

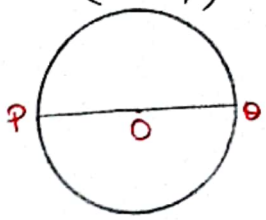
Q13. 

In this figure CB = 2AC then coordinates of point C is

(a) (0, 5) (b) (5, 0) (c) (0, 5/3) (d) None

Q14 If P & Q are $(-2,-2)$ & $(2,-4)$. Then the coordinates of B such that $AB = \frac{3}{7}PQ$ & B lies on the segment. (a) $\left(\frac{2}{7}, \frac{-20}{7}\right)$ (b) $\left(\frac{-2}{7}, \frac{20}{7}\right)$ (c) $\left(\frac{-2}{7}, \frac{-20}{7}\right)$

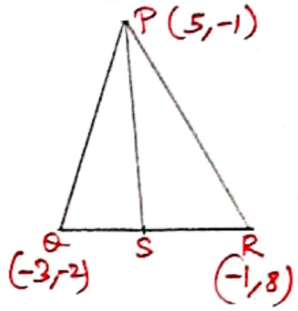
Q15 In this figure of circle with centre O. if coordinates of Centre O(-1,6), Q(-7,3) then coordinates of P are.
(a) (9,5) (b) (-5,-9) (c) (-9,-5) (d) None of these



Q16 Given PQ is a diameter of the circle with centre O. If coordinates of P(5,9) and O(-1,6) then diameter of circle is (a) $5\sqrt{2}$ (b) $10\sqrt{3}$ (c) $\frac{40\sqrt{2}}{4}$ (d) None

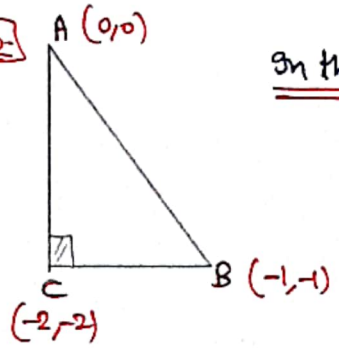
Q17 Given AB is the diameter of circle having coordinates A(4,-1) & B(-2,-5). Then area of this circle is (a) $\pi\sqrt{13}$ (b) $13\pi^2$ (c) 13π (d) None

Q18 In this figure of ΔPQR, PS is the median of triangle; Then coordinate of S are (a) (2,3) (b) (3,2) (c) (-2,3) (d) None



Q19 In the same figure of ΔPQR of Q18 find the length of median = (a) $(65)^2$ (b) $(65)^{0.5}$ (c) 6.5 (d) None

Q20 In this ΔABC. The length of the longest side is →
(a) 4 unit (b) 2 unit (c) $\sqrt{2}$ unit (d) None

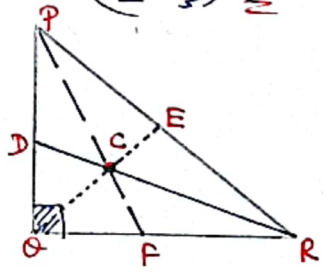


Q21. The height or altitude of this ΔACB is.
(a) $\sqrt{2}$ (b) 2 (c) $2\sqrt{2}$ (d) None.

Q22. The coordinates of centroid of ΔPQR whose vertices are A(-3,0), B(-8,5) & C(5,-2) are (a) (-1,-2) (b) (2,1) (c) (-2,1) (d) None

Q23. The coordinates of centroid of ΔABC whose vertices are $A\left(\frac{1}{4}, \frac{-1}{3}\right)$ $B\left(\frac{3}{4}, \frac{-2}{3}\right)$ & $C\left(\frac{2}{4}, \frac{1}{3}\right)$ are. (a) $\left(\frac{3}{2}, \frac{2}{3}\right)$ (b) $\left(\frac{2}{3}, \frac{-3}{2}\right)$ (c) $\left(\frac{3}{2}, \frac{-2}{3}\right)$ (d) None

Q24. In this ΔPQR, right angled at Q. Three medians PF, QE & DR are drawn from their respective vertices. If coordinates of P(6,4) & R(-2,2) and C(3,4). Then the coordinates of Q are.
(a) (3,3) (b) (3,-3) (c) (-3,-3) (d) None



Q25 The ratio in which the line joining the points A(6,5) & B(4,-3) is divided by the line $y=2$. is (a) 3:5 (b) 5:3 (c) 1:5 (d) None

026. Given vertices of a Quadrilateral ABCD are A(1,2), B(1,0), C(4,0) & D(4,2) The quadrilateral is (a) Square (b) parallelogram (c) Trapezium (d) None

027. The points A(-3,0), B(1,-8) & C(4,1) are the vertices of ∆ of →
(a) Isosceles ∆ (b) Equilateral ∆ (c) Right ∆ (d) Isoceles right angled ∆.

028. The points P(x,x), Q(-x,-x) & R(-√3x, √3x) are the vertices of
(a) Isosceles ∆ (b) Equilateral ∆ (c) Scalene ∆ (d) None

029. The points A(-4,-1), B(-2,-4), C(4,0) & D(2,3) are the vertices of ——
(a) Square (b) parallelogram (c) Rectangle (d) None

030. The points P(-3,2), Q(-5,-5), R(2,-3) & S(4,4) are the vertices of ——
(a) Square (b) Rhombus (c) Rectangle (d) None

031. The correct formula of Area of ∆ ABC, A(x_1y_1), B(x_2y_2) & C(x_3y_3) is
(a) $\frac{1}{2}[x_1(y_3-y_2)+x_2(y_2-y_3)+x_3(y_1-y_2)]$
(b) $\frac{1}{2}[x_3(y_1-y_2)+x_2(y_3-y_1)+x_1(y_2-y_3)]$
(c) $\frac{1}{2}[x_1(y_2-y_3)+x_2(y_3-y_1)+x_3(y_2-y_1)]$
(d) $\frac{1}{2}[x_1(y_2-y_3)+x_2(y_1-y_3)+x_3(y_1-y_2)]$
(e) None of them is correct formula.

032. The distance between the points P(x sinβ, x cosβ) & R(x cosβ, -x sinβ)
(a) √2 (b) x²(2) (c) 2x (d) x√2

033. The coordinates of the point on the x'axis which is equidistant from (2,5) & (2,-3) is → (a) (0,-2) (b) (2,0) (c) (-2,0) (d) None

034. The coordinates of the point on the y'axis which is equidistant from $\left(\frac{-2}{\sqrt{3}}, \frac{\sqrt{5}}{6}\right)$ & $\left(\frac{1}{\sqrt{3}}, -\frac{5}{12}\right)$ is → (a) $\left(\frac{1}{\sqrt{3}}, \frac{139}{24}\right)$ (b) $\left(\frac{139}{24(5-2\sqrt{5})}, 0\right)$ (c) $\left(0, \frac{139}{24(5-2\sqrt{5})}\right)$

035. The coordinates of the point A(x,8) if ft. A lies on the perpendicular bisector of the line joining the points (3,6) & (-3,4).
(a) (5,0) (b) (0,5) (c) (-5,0) (d) None

036. The area of ∆ ABC where A(-5,6), B(3,0) & C(9,8). is →
(a) 25 sq.units (b) 50 sq.units (c) 15 sq.units (d) None

Q37. The value of x for which the distance between the points $A(2,-5)$ & $B(10,x)$ is 10 units is → (a) 3 (b) −9 (c) 9 (d) Both a & b

Q38. If the points $A(2,3)$, $B(4,x)$ & $C(6,-3)$ are collinear in nature then value of x is → (a) −1 (b) 1 (c) 2 (d) 0 (e) None

Q39. The vertices of parallelogram in order are $A(1,2)$, $B(4,y)$ & $C(x,6)$ & $D(3,5)$. Then x,y is → (a) (6,3) (b) (3,6) (c) (5,6) (d) (1,4)

Q40. The equation of the perpendicular bisector of the line segment joining the points $A(4,5)$ & $B(-2,3)$ is →

(a) $2x-y+7=0$ (b) $3x+2y-7=0$ (c) $3x-y-7=0$ (d) $3x+y-7=0$.

Q41.