Name _____ raw scaled percent

Math 10 Trimester 3 Exam 1 (202 Points)

Coordinate Geometry. Equation of Straight Line

■ **A. Answers the following. (30 points each). This section is 60% of exam.**

[1] Find the equation of the line through the point $P(-2, -3)$ and parallel to the line $\ell_1 : y = -\frac{3}{2}x + 3$. Leave answer in point-slope from.

[2] Find the equation of the line through the points $P(4, -5)$ and $Q(-6, 2)$. Leave answer in point-slope from.

[3] Find the equation of the line through the point $P(2, 7)$ and perpendicular to the line $\ell_1 : 2x - 3y + 5 = 0$.

[4] Find the y-intercept of the perpendicular bisector of the line segment AB, $A(-3, 4)$, $B(5, 2)$?

■ **B. Answer the following. (18 points each). This section is 35% of exam.**

[1] Find the distance between the points $P(-3, -5)$, $Q(0, -1)$.

[2] Find k such that the distance PQ = 10, where $P(-1, 1)$, $Q(7, k)$ and Q is in the first quadrant.

[3] Find the midpoint of line segment AB, where $A(-1, 4)$, $B(3, -10)$.

[4] Find the point P such that the midpoint of AP is $(-1, 1)$, where $A(-5, -3)$.

■ **C. Answer the following. (5 points each). This section is 5% of exam.**

[1] Find the distance from the point $P(3, 4)$ to the line $y = \frac{1}{2}x + 2$.

[2] Find the locus of points equidistant from the two points $A(-2, 0)$ and $B(5, 0)$.

Answers

Math 10 Trimester 3 Exam 1 (202 Points)

Coordinate Geometry. Equation of Straight Line

■ **A.**

[1] $y + 3 = \frac{-3}{2}(x + 2)$ [2] $y + 5 = \frac{-7}{10}(x - 4)$ [3] $y - 7 = \frac{-3}{2}(x - 2)$

[4] $(0, -1)$

■ **B.**

[1] $d = 5$ [2] $k = 7$ [3] $(1, -3)$ [4] $(3, 5)$

■ **C.**

[1] $\frac{\sqrt{5}}{5}$ [2] The line $x = \frac{3}{2}$