

Quiz 1.6: Equation of a Line

Multiple Choice: Choose the letter that corresponds to the correct answer. Write the answer in your answer sheet.

- Which of the following is the two-point form formula?
A. $\frac{x}{a} + \frac{y}{b} = 1$ B. $y = mx + b$ C. $y - y_1 = m(x - x_1)$ D. $y - y_1 = \frac{y_2 - y_1}{x_2 - x_1}(x - x_1)$
- What is the trend of the graph whose slope is undefined?
A. Falls from left to right B. Rises from left to right C. Horizontal line D. Vertical line
- The formula $y - y_1 = m(x - x_1)$ is called:
A. Point-Slope Form B. Two-Point Form C. Slope-Intercept Form D. Intercept Form
- How do we find the x-intercept?
A. Let $x = 0$ and solve for x C. Let $x = 0$ and solve for y
B. Let $y = 0$ and solve for y D. Let $y = 0$ and solve for x
- What is the trend of the graph whose intercepts have different signs?
A. Falls from left to right B. Rises from left to right C. Horizontal line D. Vertical line
- Which formula should we use to find the equation of a line whose intercepts are given?
A. Point-Slope Form B. Two-Point Form C. Slope-Intercept Form D. Intercept Form
- What is the x-intercept of the line whose equation is $x = 7$?
A. undefined B. 0 C. 7 D. real number
- Which formula should we use to find the equation of a line whose x- and y-intercepts are given?
A. $\frac{x}{a} + \frac{y}{b} = 1$ B. $y = mx + b$ C. $y - y_1 = m(x - x_1)$ D. $y - y_1 = \frac{y_2 - y_1}{x_2 - x_1}(x - x_1)$
- What is the trend of the line whose equation is $y = -3x - 5$?
A. Falls from left to right B. Rises from left to right C. Horizontal line D. Vertical line
- Which formula should we use to find the equation of a line whose slope and a point are given?
A. Point-Slope Form B. Two-Point Form C. Slope-Intercept Form D. Intercept Form
- Determine the slope of the equation $6x + 3y = 9$ and describe the graph.
A. $m = 2$, Rising B. $m = -2$, Falling C. $m = 3$, Falling D. $m = -3$, Rising
- Determine the slope of the linear equation $-4y - 8 = 0$ and describe the graph.
A. $m = -4$, Falling B. $m = 0$, Horizontal C. $m = 8$, Rising D. $m = \text{undefined}$, Vertical
- Find the equation of the line that passes through the points $(2, 3)$ and $(5, 8)$.
A. $y = \frac{5}{3}x - \frac{1}{3}$ B. $y = \frac{5}{3}x + \frac{1}{3}$ C. $y = \frac{5}{3}x - \frac{2}{3}$ D. $y = \frac{5}{3}x + \frac{2}{3}$
- Write the equation of the line given the intercepts $a = 3; b = -4$.
A. $4x + 2y = 12$ B. $4x - 2y = 12$ C. $4x + 3y = 12$ D. $4x - 3y = 12$
- Determine the intercepts of the equation $6x + 3y = 12$ and describe the graph.
A. $a = -2, b = 4$, Rising B. $a = -2, b = -4$, Falling C. $a = 2, b = 4$, Falling D. $a = 2, b = -4$, Rising

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