

THANKSGIVING LINEAR EQUATION REVIEW

Complete the following:

1. State the value of the slope of a horizontal line and explain why it has that value.
2. State the value of the slope of a vertical line and explain why it has that value.
3. Explain why a slope that has an absolute value greater than 1 is considered "steep"
4. Show the three ways that slope can be represented.
5. Write the algebraic representation of the Slope-Intercept Form.
6. Write the algebraic representation of the Standard Form of a Linear Equation.

Find the slope of the line through the given points.

1. (9, 5) & (7, 6)
2. (-6, -7) & (-4, -4)
3. $\left(\frac{1}{2}, \frac{3}{4}\right)$ & $\left(\frac{1}{3}, \frac{2}{3}\right)$
4. $\left(-2.5, \frac{1}{3}\right)$ & $\left(\frac{1}{4}, 0.2\right)$

Find the slope of each line whose equation is given:

1. $y = 5x - 2$
2. $2x + y = 4$
3. $2x + 3y = 12$
4. $y = -5$
5. $3x - y = \frac{1}{2}(6x + 4y)$

State the slope and y-intercept of each line whose equation is given:

1. $y = 4x$
2. $y = -2x - \frac{1}{3}$

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Write an equation in Standard Form for the line that has the given slope and y-intercept.

1. $m = 3, b = 2$
2. $m = -1, b = 7$
3. Write an equation of the line that has y-intercept of -4, and is parallel to the graph of $y = 3x - 1$.
4. Write an equation of the line that is parallel to the graph of $y - 2x = 1$ and has the same y-intercept as graph of $4y + 3x = 20$.
5. In the equation of $3y = px + 5$, for what value of p is the graph of the equation parallel to the graph of $x - y = 4$? The graph of $x + y = 4$?
6. In the equation of $dy + 3x = 2$, for what value is the graph of the equation parallel to the graph of $x - 6y = 0$? The y-axis?
7. Using the Standard Form of a Linear Equation, find the formula for the slope and a formula for the y-intercept in terms of the coefficients, assuming that no coefficient is equal to zero.
8. The line that has slope $\frac{1}{3}$ and passes through the point of intersection of the graphs of $2x - 7y = 15$ and $x - y = 5$.
9. The line whose x-intercept is -6 and y-intercept is 2.

