

# 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 of  $d$  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 denominator 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.

