Name: _____ is Smart! 😊

Math 115 Spring 2025
Mr. Sahney

Standard 2 Practice

1. Find the slope between the points $(9, -4)$ and $(3, -5)$

2. What is the slope of the vertical line $x = 3$?

3. What is the slope of the horizontal line $y = -2$?

4. Let $A = (-2, -3)$ and $B = (2, 5)$

a. Write an equation of the line passing through the points A and B in slope intercept form.

b. Sketch a graph of the line. Label the coordinates of the x-intercept and the y-intercept.

Fall 2025 Final

5. Consider a line L passing through the points $(-3,3)$ and $(3,5)$
   a. Write an equation of this line in slope-intercept form.

   b. Sketch the graph of this line. Label the coordinates of the x-intercept and the y-intercept.

   c. Find an equation of a line perpendicular to the line L found in part a that passes through $(2,4)$.

6. Find an equation for the line with slope of $\frac{2}{3}$ that goes through the point $(3,-5)$.

7. Find the equation of a line parallel to $3x - 4y = 12$ that passes through $(2,5)$.

8. Find the equation of a line perpendicular to $5x + 2y = 8$ that passes through $(5, -4)$

9. Determine if the two lines are parallel, perpendicular, or neither. Explain your answer.

Line 1: $x - 2y = 18$ Line 2: $y = -2x + 7$

10. Sam drives a delivery van. The equation models the relation between his weekly cost, $C = 0.5m + 60$, in dollars and the number of miles, m, that he drives.

a. Find Sam's cost for a week when he drives 0 miles.

b. Find the cost for a week when he drives 250 miles.

c. Interpret the slope and C-intercept of the equation.