Chapter 4 Writing Linear Functions
Study guide and practice

Write the slope formula:

Write the slope-intercept form of a linear equation:

Write the point-slope form of a linear equation:

4.1 Writing Linear Equations in Slope-Intercept Form
Be able to write an equation in slope intercept form given:

   a)   The slope and intercept
   b)   A point and the slope
   c)   Two points

Write the <u>slope intercept</u> form of the equation of the line.

1. slope = $-\frac{5}{2}$, y intercept = 4   2. Through (0, 3) and a slope of 8

3. Through (0, 1) and (2, -4)

4.2 Writing Linear Equations in Point-Slope Form
Be able to write an equation in point-slope form given:

   a) The slope and a point
   b) Two points

Write the <u>point-slope</u> form of the equation of the line.

4. Through (1, 2), slope -9   5. Through (-1, -5) and (5, -4)

4.3 Writing Linear Equations Parallel or Perpendicular to a given line through a given point.

6. Write the <u>point-slope</u> form of the equation of the line through (-4, -5) and parallel to y = x + 3

7. Write the <u>slope-intercept</u> form of the equation of the line passing through (-3, 0) and is parallel to the line $y = \frac{4}{3}x + 1$.

8. Write the <u>point-slope</u> form of the equation of the line through (0, 2) and is perpendicular to $y = -\frac{1}{5}x + 1$

9. Write the <u>slope-intercept</u> form of the equation of the line through (-4, 4) and is perpendicular to $Y = \frac{5}{7}x + 1$.
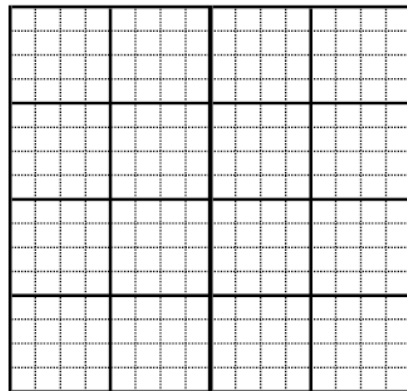
===
Find the slope.

10. (-16, -1), (10, 4)

11. Solve for y: 5y - 3x = 10

12. Evaluate the function.

f(x) = 4x - 8, x = -5

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

14. The equation y = 13.50x + 42 represents Marco's savings account monthly balance.
Interpret the slope:

Interpret the y intercept: