Foundations of Math 1 5.3 Slope-Intercept Form Unit 6 Day 2

y = mx + b

**Slope:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**y-intercept:** Where the graph

crosses the y-axis

( x , y ) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* The ordered pair stays as x and y when writing the equation

**Identifying Slope and Y-Intercept**

What are the slope and y-intercept of the following equations?

1. y = 2x + 5
2. y = -5x – 1
3. y = 1/3x + 2
4. y = x/2 – 3
5. 2y = 6x + 4

**Graphing Equations of Lines in Slope-Intercept Form**

Graph the following lines:

1. y = 2x – 1
2. y = 1/2x + 5
3. y = -3x – 2



**Writing Equations in Slope-Intercept Form**

Write the equation of the line with the following slope and y-intercept:

1. slope = ½;

y-intercept = 2

1. slope = 3;

y-intercept = -2

1. slope = -4;

y-intercept = 0

1. slope = 0;

y-intercept = 9

1. slope = 0;

y-intercept = 0

**Writing Equations with a Given Point and Slope**

Write the equation of the line that goes through each given point and slope.

1. Write the equation of a line that goes through the point (2, 3) and has a slope of 5.
2. Write the equation of the line that goes through the points (2, 1) and (5, -8).