

3.) **From an Equation** $\rightarrow y = mx + b$ a.) Solve the equation for y.b.) Slope is the rate of change therefore, it is next to the variable x.c.) The slope is the coefficient of x.

① $y = \frac{1}{2}x + 4$ $m = \frac{1}{2}$

② $y = -3x - 2$ $m = -3$

③ $y = -1x + 5$ $m = -1$

④ $y = -1x + 3$ $m = -1$

4.) **From Two Points**a.) Label the x and y coordinates.b.) Find the change of y and the change of x by subtractingc.) Write the slope as the change of y over the change of x.

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

① $(1, 3)$ $(7, 5)$
 x_1, y_1 x_2, y_2 $m = \frac{5 - 3}{7 - 1} = \frac{2 \div 2}{6 \div 2} = \frac{1}{3}$

② $(-4, 7)$ $(-6, -4)$
 x_1, y_1 x_2, y_2 $m = \frac{-4 - 7}{-6 - (-4)} = \frac{-4 - 7}{-6 + 4} = \frac{-11}{-2} = \frac{11}{2}$