

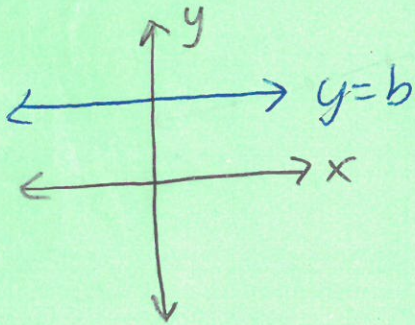
**Objective:** Given an equation in slope intercept form students will identify the slope and y-intercept and use these key features to graph the equation of a line.

### SLOPE-INTERCEPT FORM

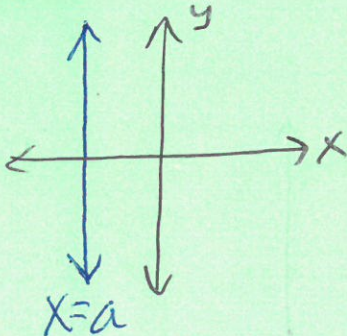
$$y = \underline{m}x + \underline{b}$$

$$m = \text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}; x_2 \neq x_1 \quad \text{y-intercept (x=0)}$$

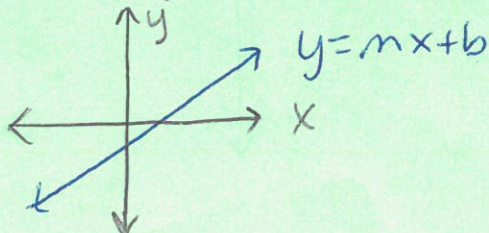
① horizontal line (slope = 0)  $y = b$



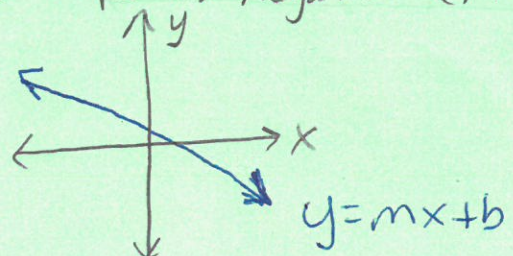
② vertical line (slope is undefined)  $x = a$



③ slope is positive ( $m > 0$ )

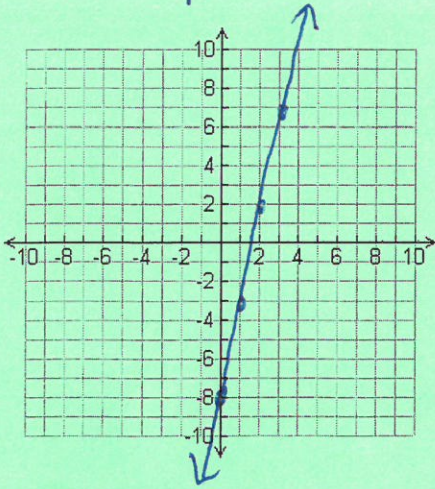


④ slope is negative ( $m < 0$ )

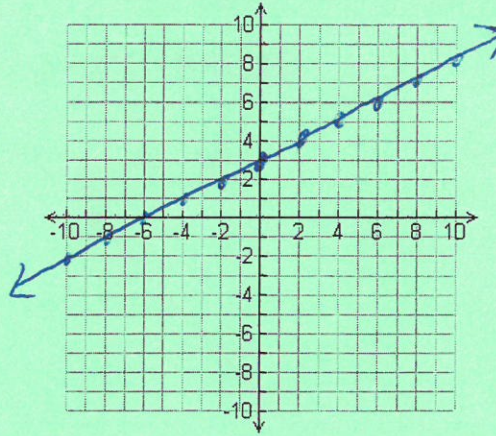




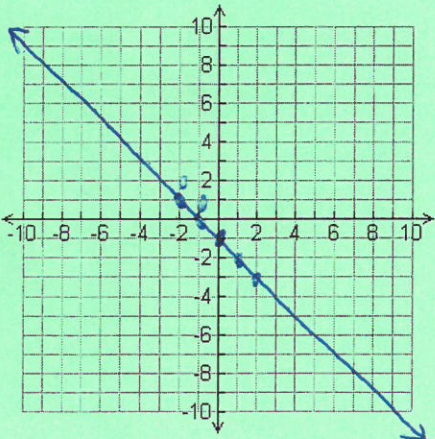
1.  $y = \frac{5}{1}x - 8$



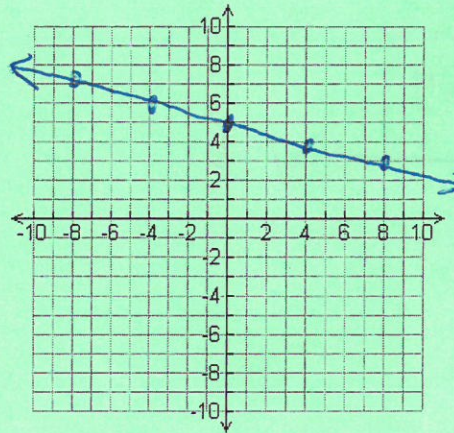
2.  $y = \frac{1}{2}x + 3$



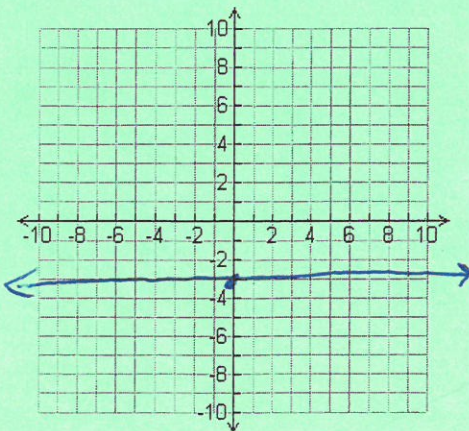
3.  $y = -x - 1$



4.  $y = -\frac{1}{4}x + 5$



5.  $y = -3$



6.  $x = 6$

