

## Notes #6 ~ Sect. 2.2: Linear Equations (Part 1)

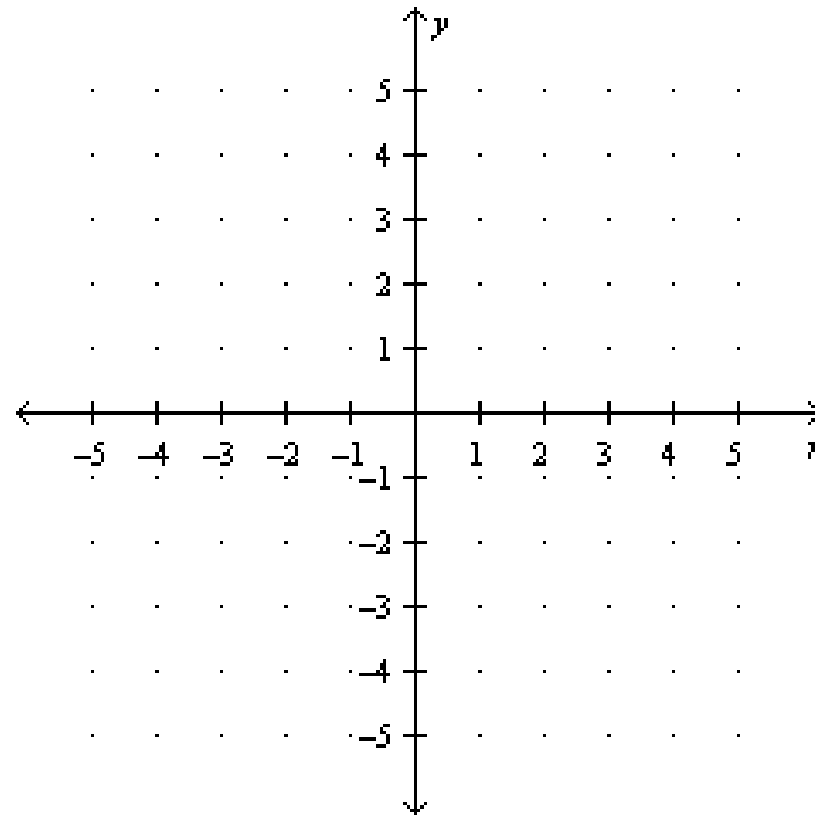
Slope-Intercept Form :  $y = mx + b$  where  $m$ =slope &  $b$ =y-intercept.

y-intercept : The point at which the line crosses the y-axis.

x-intercept : The point at which the line crosses the x-axis.

Ex. 1 : Graph the linear equation.

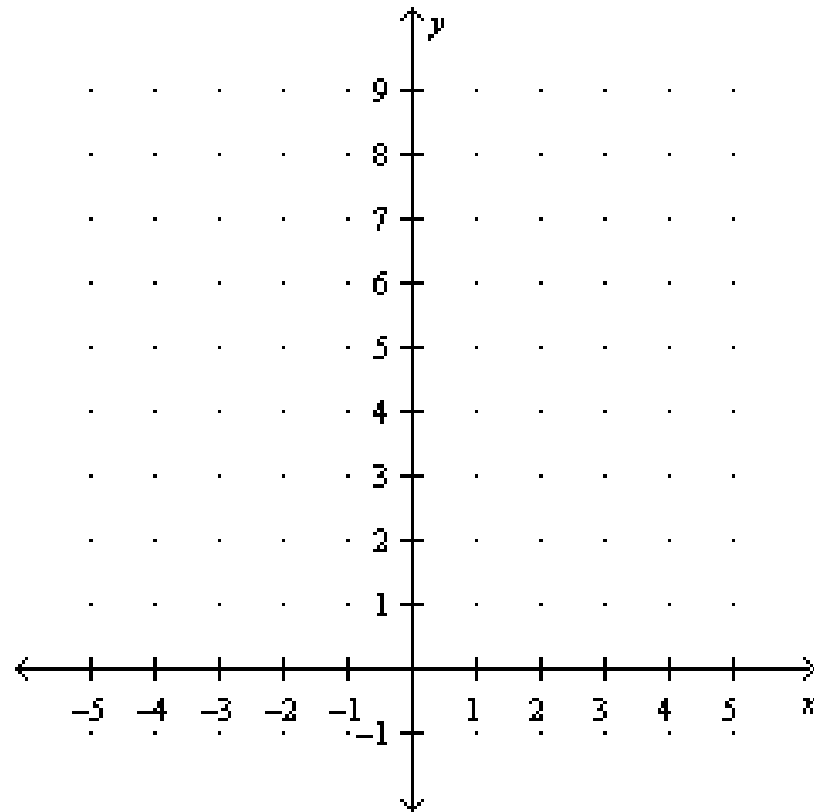
$$y = -\frac{4}{3}x + 2$$



Standard Form :  $Ax + By = C$   
where A, B, & C are integers and A is positive.

Ex. 2: Graph by finding the x- and y-intercepts.

$$10x + 5y = 40$$



Use this formula to find slope of the line that passes through two given points:  $(x_1, y_1)$  &  $(x_2, y_2)$

$$\text{Slope Formula} : m = \frac{y_2 - y_1}{x_2 - x_1}$$

Ex. 3 : Find the slope of the line through the points  $(-2, 7)$  &  $(8, -6)$ .

Ex. 4: Find the slope of  $7x - 2y = -8$ .

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