

12.2 Graphing Linear Equations

❖ LINEAR EQUATIONS IN TWO VARIABLES

Linear Equation: An equation in which each variable term contains a single variable raised to an [exponent of 1](#).

The equation of a line L is in **standard form** when it is written as

$$Ax + By = C$$

where A , B , and C are real numbers, and A and B are not both 0.

The equation of a line L is in **slope-intercept form** when it is written as

$$y = mx + b$$

where m and b are real numbers.

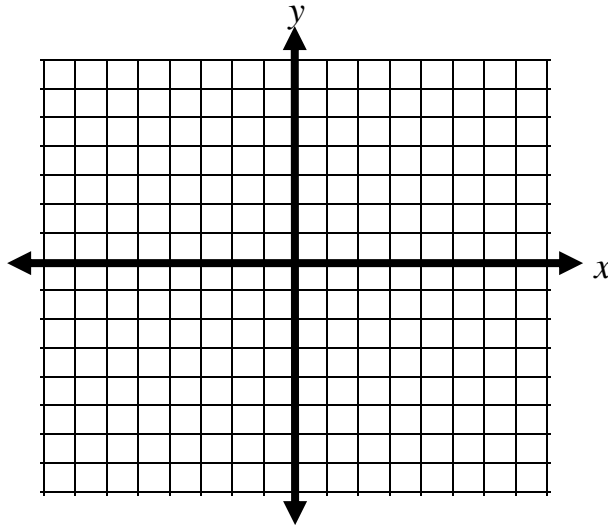
m : Slope

b : y-intercept; $(0, b)$

Ex. Graph each equation and identify the y-intercept.

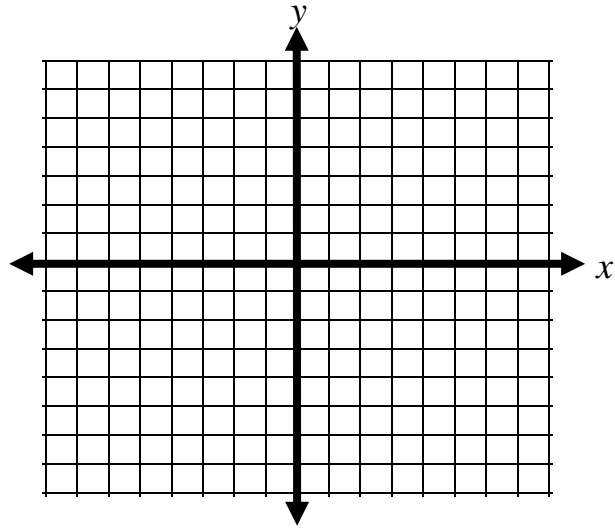
(a) $y = x - 3$

y-intercept: _____



(b) $3x + 5y = 5$

y-intercept: _____



(c) $y = -\frac{1}{2}x$

y-intercept: _____

