

Chapter 3 highlights

To determine if an equation is a line put it in Standard form

Standard Form of an equation

$$Ax + By = C$$

A +

A and B are not fractions

Ax and By are on the left, constant is on the right

xy, x^2 , y^2 are not linear!

TO GRAPH

Graph by x and y intercepts

$$x = 0, y = ?$$

$$y = 0, x = ?$$

Chart

x 0 1 2 3 4 5

y

Solve by graphing

Set equation = 0

Replace 0 with y

Set up chart

Graph

Where the equation crosses the x axis is your solution.

Check by algebra

$$\text{Slope} = \text{Rise} / \text{Run} = m = \frac{y_2 - y_1}{x_2 - x_1}$$

Direct variation

$$Y = kx$$

$$a_n = a_1 + (n - 1)d$$

/ 0 = undefined slope

0 / # = 0 slope

$$Y = mx + b$$

X 0 1 2 3 4 5

Y b

$$cd = d = m$$