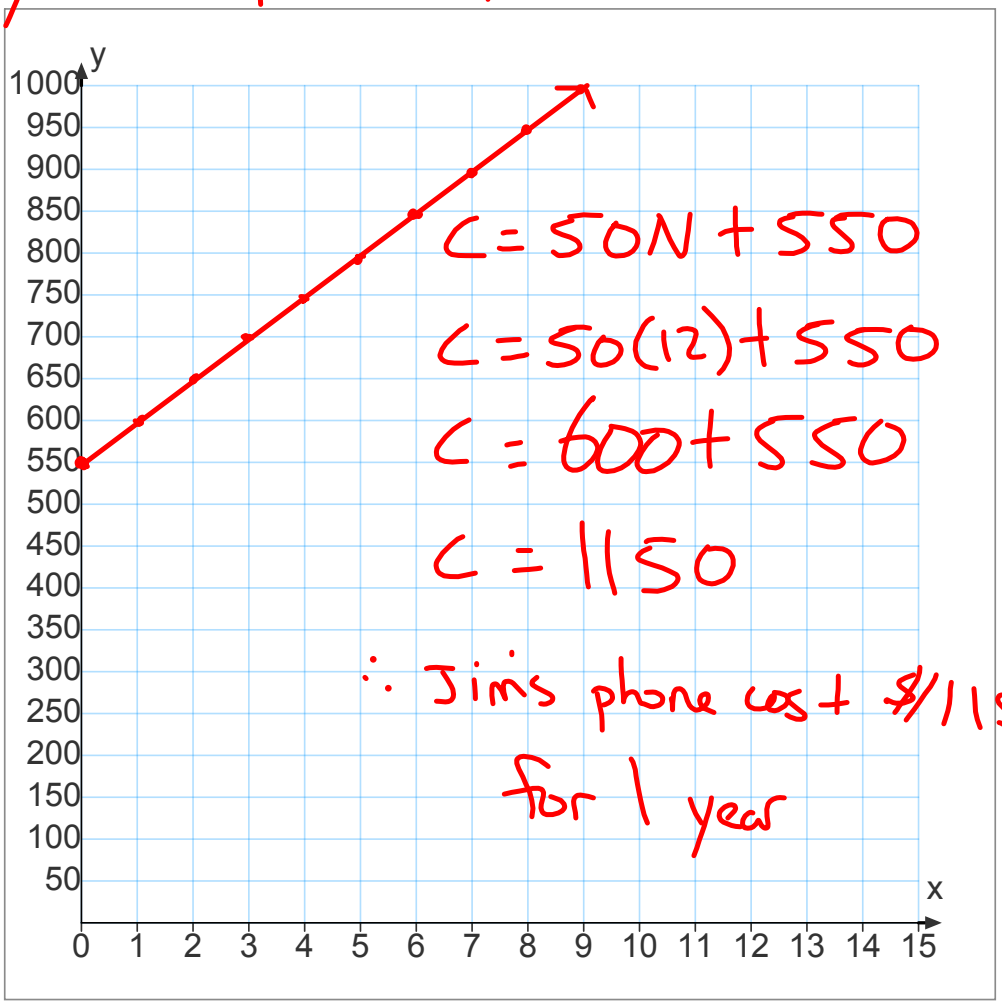
Warm-Up Question:

1. Jim paid $550 for his smart phone and he pays $50 per month for his data package. Draw a graph of the total amount that Jim spends for his phone for one year. What is the equation of the line that models the total cost?

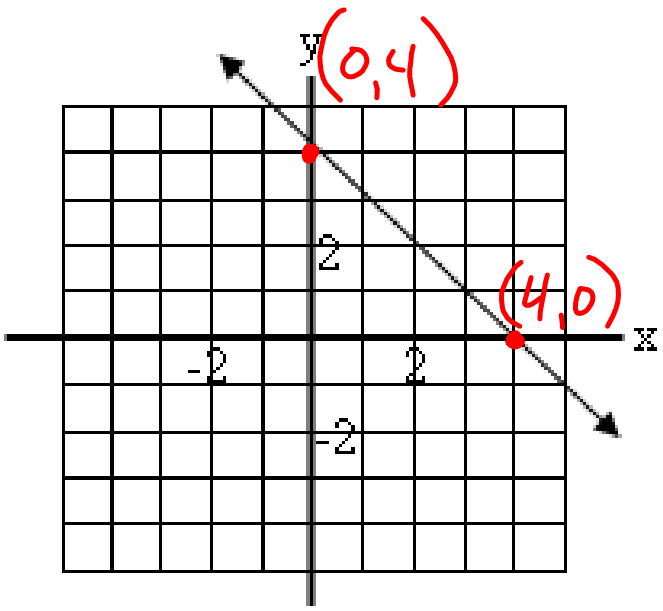
Paid 550
Pays 50 per month

C = cost
N = # of months



The x-intercept is the Coordinates of the point where the line intersects the x axis.

The y-intercept is the Coordinates of the point where the line intersects the y axis.



To find the y-intercept:

make x = to 0 and solve

To find the x-intercept:

make y = to 0 and solve

Ex. 1 Find the x- and y-intercepts and graph them on the grid provided.

a) $4x - 2y - 8 = 0$ (2, 0) (0, -4)

x-intercept:

$4x - 2(0) - 8 = 0$

$4x - 8 = 0$

$\frac{4x}{4} = \frac{8}{4}$

$x = 2$

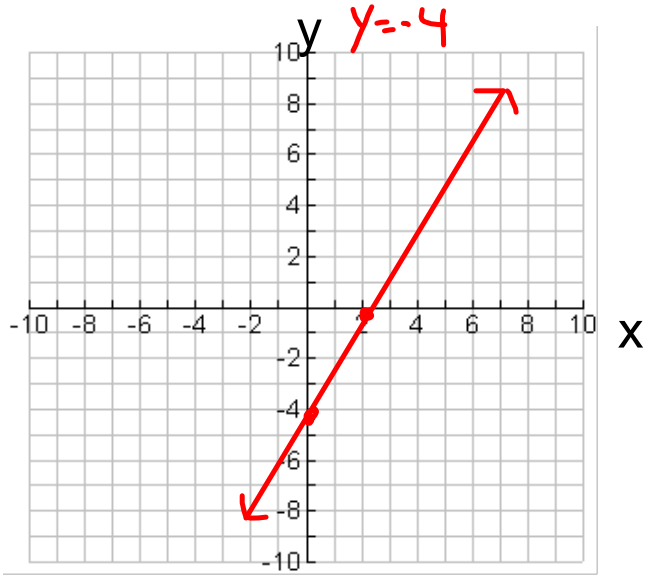
y-intercept:

$4(0) - 2y - 8 = 0$

$-2y - 8 = 0$

$\frac{-2y}{-2} = \frac{8}{-2}$

$y = -4$



b) $2x - 3y - 10 = 0$

x-intercept:

$2x - 3(0) - 10 = 0$

$2x - 10 = 0$

$\frac{2x}{2} = \frac{10}{2}$

$x = 5$ (5, 0)

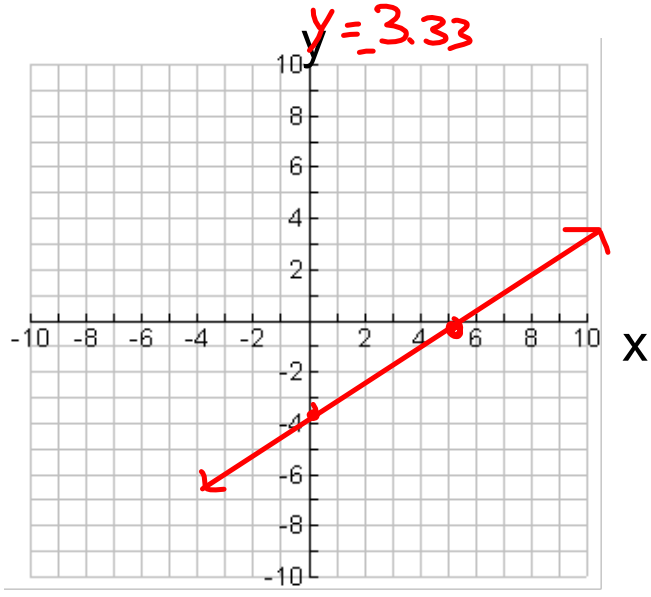
y-intercept:

$2(0) - 3y - 10 = 0$

$-3y - 10 = 0$

$\frac{-3y}{-3} = \frac{10}{-3}$

$y = -3.33$ (0, -3.33)



HOMEWORK ASSIGNMENT

Complete the following questions on a separate piece of paper. Be neat and show all of your work.

1. Find the **x-intercepts** of each of the following lines:

a) $x + 2y - 3 = 0$ b) $2x - 3y - 4 = 0$ c) $2x + 5y - 6 = 0$

2. Find the **y-intercepts** of each of the following lines:

a) $x + y + 2 = 0$ b) $3x + 4y + 8 = 0$ c) $2x + 3y - 6 = 0$

3. Find the **x and y-intercepts** and **graph** the following lines:

a) $x - y - 5 = 0$ b) $3x + y - 9 = 0$ c) $x - 2y + 4 = 0$

d) $2x - 3y + 12 = 0$ e) $4x - 3y - 24 = 0$ f) $2x + 5y - 6 = 0$