**Explore:**

1. Graph $x + 3y = -3$ using intercepts.

**Step 1:** Find the y-intercept by plugging in 0 for x.

$0 + 3y = -3$

$\frac{3y}{3} = \frac{-3}{3}$ $\quad (0, -1)$

$y = -1$

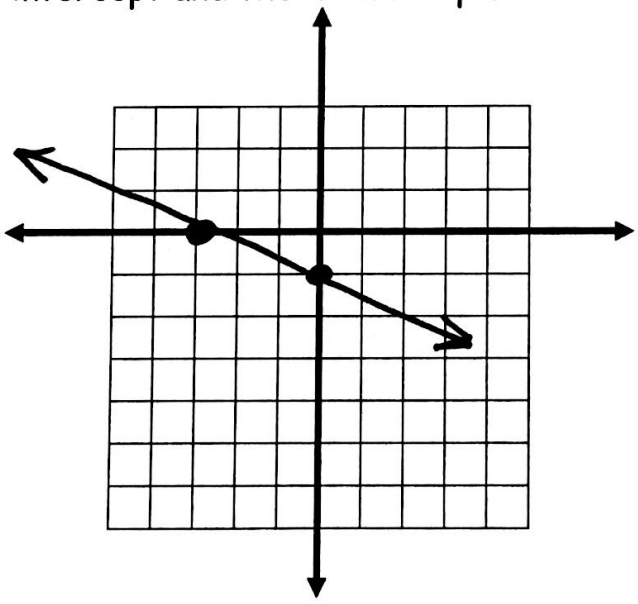
**Step 2:** Find the x-intercept by plugging in 0 for y.

$x + 3(0) = -3$

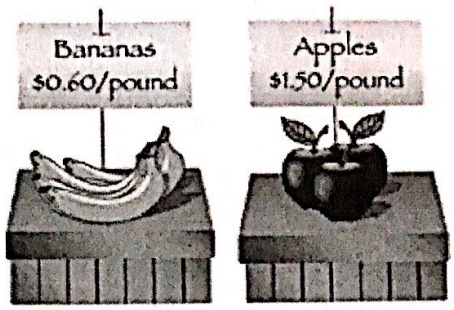
$x + 0 = -3$ $\quad (-3, 0)$

$x = -3$

**Step 3:** Plot the y-intercept and the x-intercept. Connect the two points.



2. You have $6 to spend on apples and bananas.




a. Write an equation representing the number of apples and the number of bananas you can buy. $1.50a + .60b = 6$

OR

$1.50x + .60y = 6$

b. Find the x- and y- intercepts for the equation you wrote.

$.60b = 6$

$b = 10$

OR

$y = 10$

$1.50a = 6$

$a = 4$

OR

$x = 4$

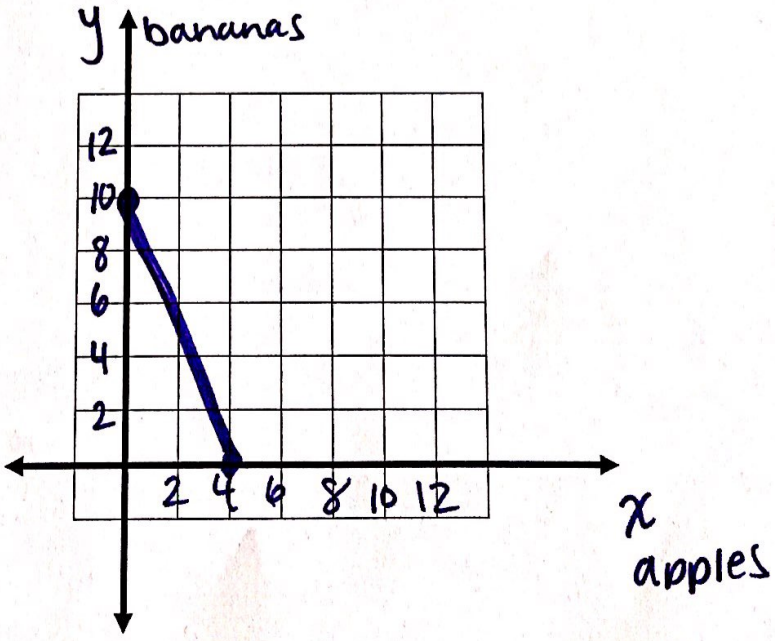
c. What do the intercepts mean in the context of this problem?

if you buy zero apples you can buy 10 bananas

and

if you buy zero bananas you can by 4 apples

d. Use the x- and y- intercepts to graph the equation.



**Summarize:**

In your own words, explain how to use the intercepts to graph an equation that is in standard form.

Plug in zero for x and solve for y

Plug in zero for y and solve for x

Plot 2 points

Connect ~~the~~ 2 points