4.03 Graphing by Intercepts; Non-Linear Graphing
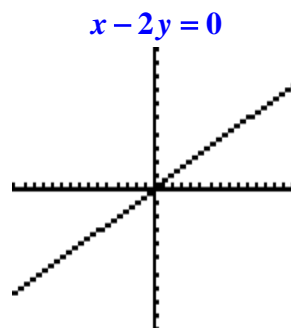
Basic Algebra: One Step at a Time, **Pages 319-324: #41, 42**

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P. 324: #41. $x - 2y = 0$

At first glance, since this equation is in standard form, you would probably graph this by the two-intercept method. That is, let **x=0**, and find y. Let **y=0** and find x.

If **x=0**, then **y=0**. If **y=0**, then **x=0**. However, this is the same point! In order to draw the graph, you will have to either find another point or find the slope of the line. If you choose to find another point, you can choose a point, any point for x. In this equation $x - 2y = 0$, it might be easiest to just pick any even number for x, like **x=2**, and find y. Can you see that if **x=2**, then **y=1**? If so, then you now have two points: **(0,0)** and **(2,1)**. Now, graph these two points and connect the dots!! It should look like this:

$x - 2y = 0$

P. 324:   #42. $x + 2y = 0$

As in #41, at first glance, since this equation is in standard form, you would probably graph this by the two-intercept method. That is, let x=0, and find y. Let y=0 and find x.

If x=0, then y=0. If y=0, then x=0. However, this is the same point! In order to draw the graph, you will have to either find another point or find the slope of the line. If you choose to find another point, you can choose a point, any point for x. In this equation $x + 2y = 0$, it might be easiest to just pick any even number for x, like x=2, and find y. Can you see that if x=2, then y=−1? If so, then you now have two points: (0,0) and (2,−1). Now, graph these two points and connect the dots!! It should look like this:

$x + 2y = 0$