

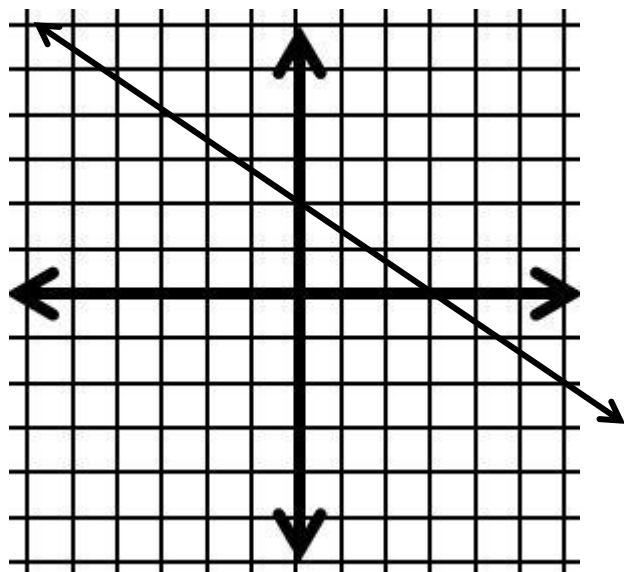
How do you solve for the intercepts, given an EQUATION of a line?

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What are intercepts?

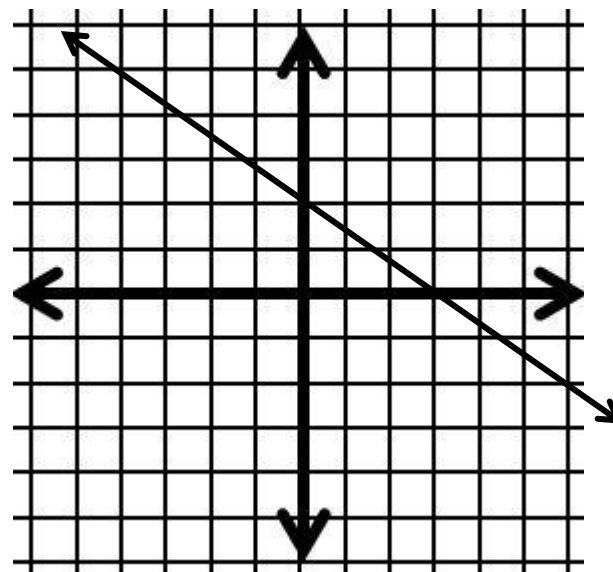
What are intercepts?

An intercept is \_\_\_\_\_  
\_\_\_\_\_.



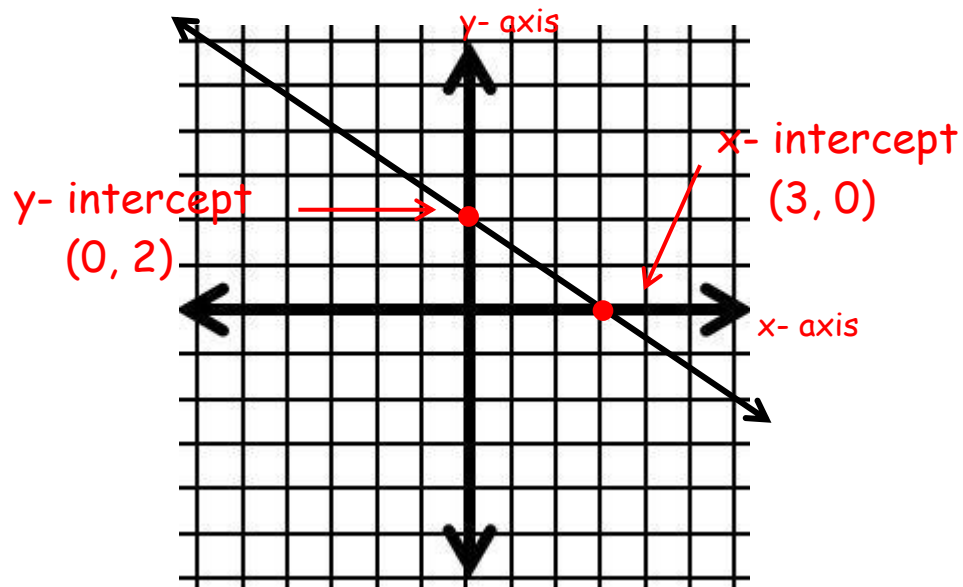
Find the  $x$ - and  $y$ - intercepts of the line  
 $3x - 4y = 12$ .

An intercept is \_\_\_\_\_  
\_\_\_\_\_.



Find the  $x$ - and  $y$ - intercepts of the line  
 $3x - 4y = 12$ .

An intercept is the point where the line crosses the given axis.



Find the x- and y- intercepts of the line  
 $3x - 4y = 12$ .

x-intercept

Let  $y = 0$

$$3x - 4y = 12$$

$$3x - 4(0) = 12$$

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4$$

Therefore the line will cross the x-axis at 4 or (4,0).

y-intercept

Let  $x = 0$

$$3x - 4y = 12$$

$$3(0) - 4y = 12$$

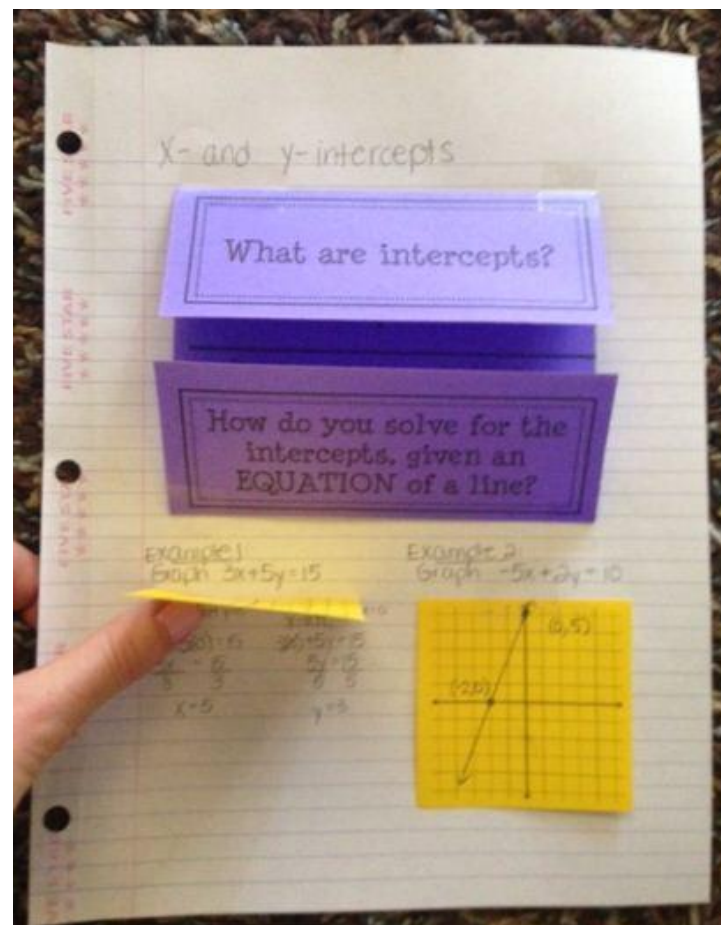
$$\frac{-4y}{-4} = \frac{12}{-4}$$

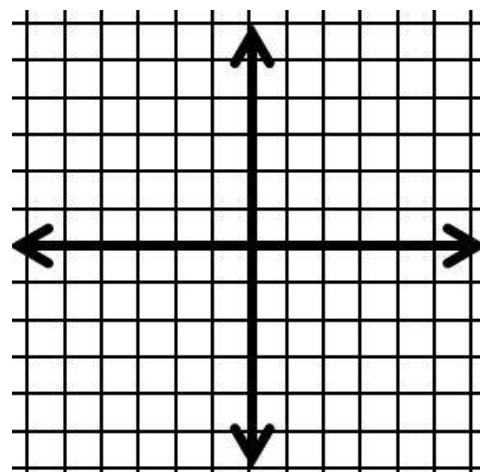
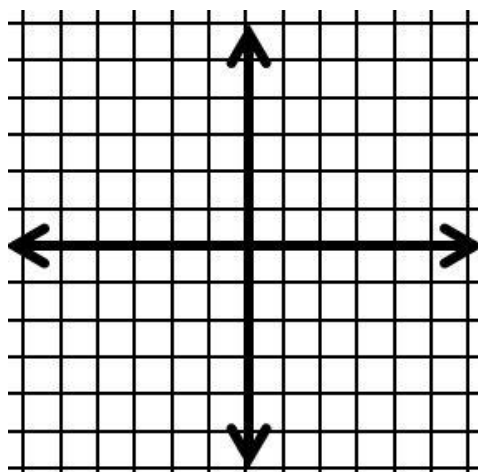
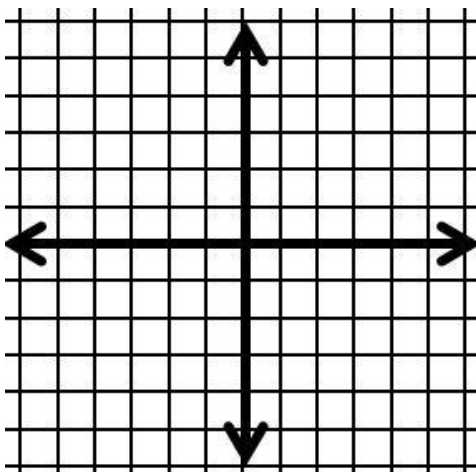
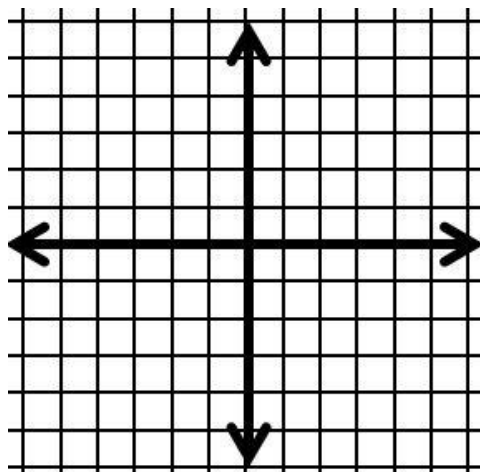
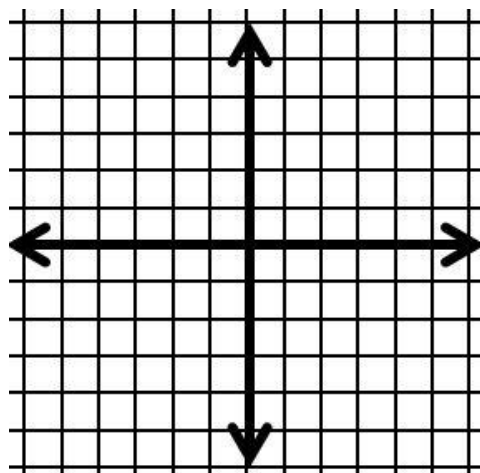
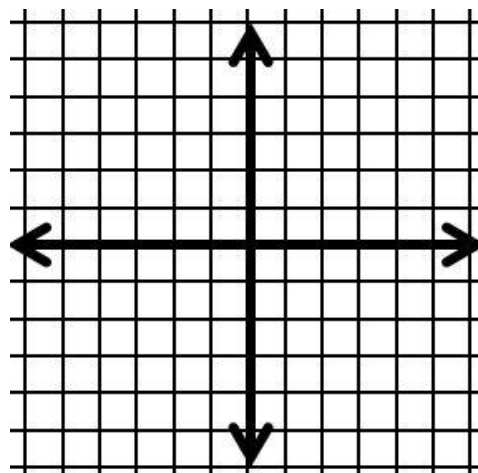
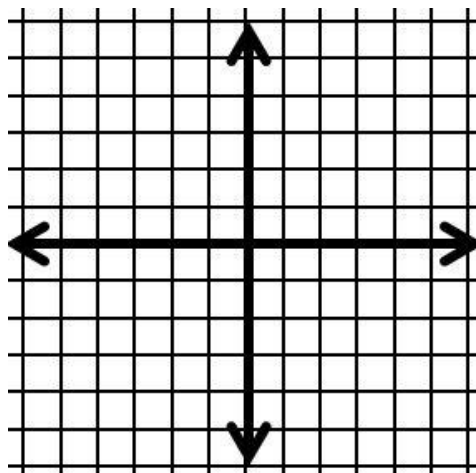
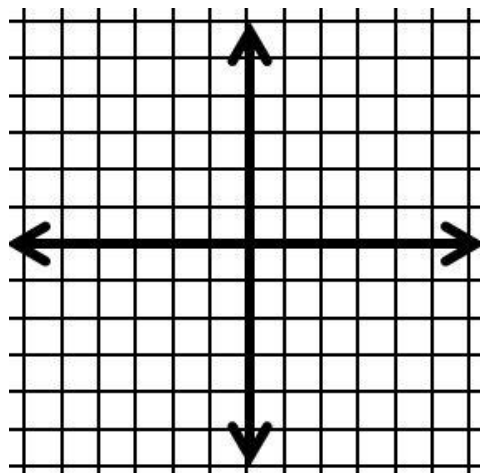
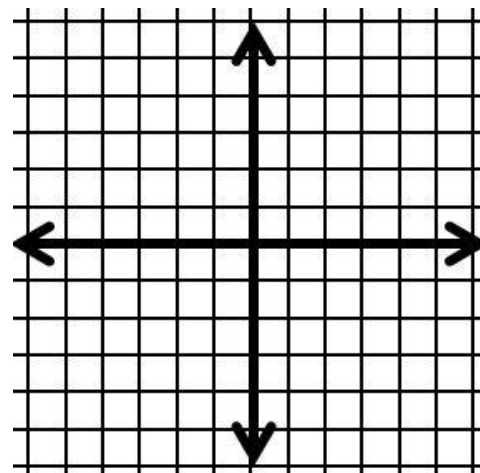
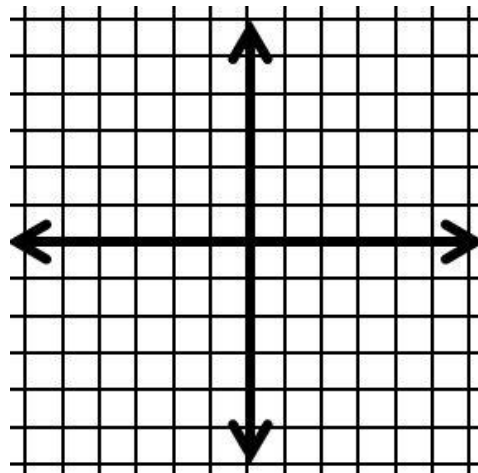
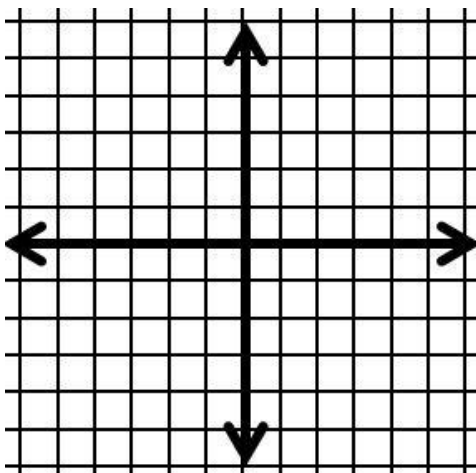
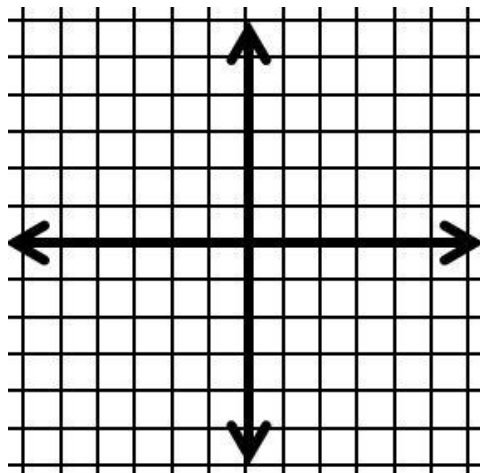
$$y = -3$$

Therefore the line will cross the y-axis at -3 or (0, -3).

← This is how I use the foldable!

I also include a couple of extra examples in their notes asking students to actually graph a line using the intercepts. There is a page worth of coordinate planes that can be used for this.





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Step 1: Print pages 1 & 2 front to back  
(the writing should go in opposite directions)

Step 2: Cut the page in half (along the dotted line)  
\*Note: Each page creates 2 foldables

Step 3: Fold over the title tabs so that they meet at the solid line in the center.

The final product should look like this:

