

## General Algebra II Worksheet #2 Unit 2 Selected Solutions

For each of the following linear equations in two variables: (a) find the x and y intercepts, (b) write the equation in slope-intercept form, and (c) graph the equation.

1.  $3x - 2y = 10$

(a) x intercept:  $10/3$  y intercept:  $-5$

The x-intercept is the value of x when y = 0. The y-intercept is the value of y when x = 0.  
Just let y = 0, and solve for x.

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

$$3x = 10$$

$$x = 10/3$$

Just let x = 0, and solve for y.

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

$$-2y = 10$$

$$y = -5$$

(b) slope intercept equation:  $y = \frac{3}{2}x - 5$

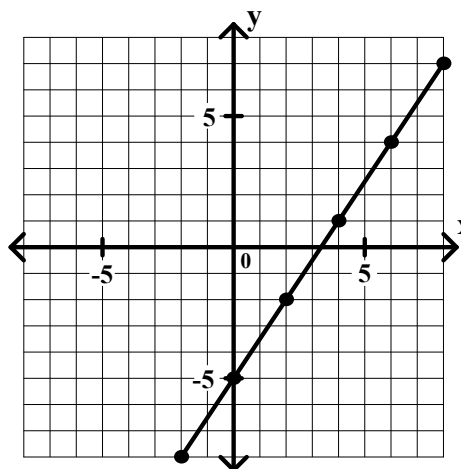
To find the slope-intercept equation, just solve for y.

$$3x - 2y = 10$$

$$-2y = -3x + 10$$

$$y = \frac{3}{2}x - 5$$

(c)



Graph each of the following equations in the Cartesian coordinate plane.

15.  $x + 4y = 20$

$$4y = -x + 20$$

$$y = -\frac{1}{4}x + 5$$

