

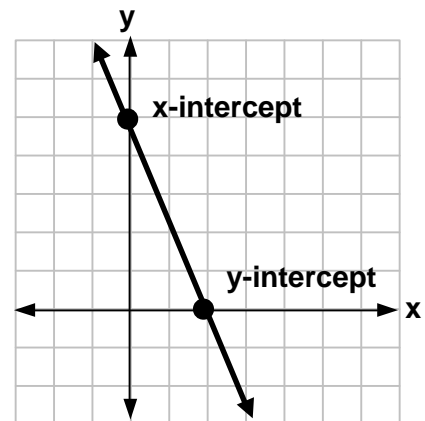
Section 4.3 Quick Graphs Using Intercepts

The x-intercept is where the line crosses the x-axis and $y=0$.
The y-intercept is where the line crosses the y-axis and $x=0$.

To find the x-intercept simply substitute $y=0$ into the equation and solve for x .

To find the y-intercept simply substitute $x=0$ into the equation and solve for y .

If you know the x and y intercepts of an equation, you can easily graph the equation by plotting the two intercepts and drawing a line through them.



Example: Graph $2x + 3y = 6$

Step 1: Find the x-intercept by putting a zero in place of y .

$$2x + 3(0) = 6$$

$$2x + 0 = 6$$

$$2x/2 = 6/2$$

$$x = 3$$

The x-intercept is at $(3,0)$

Step 2: Find the y-intercept by putting a zero in place of x .

$$2(0) + 3(y) = 6$$

$$3y = 6$$

$$y = 2$$

The y-intercept is at $(0,2)$

Step 3: Plot the two intercepts and draw the line.

