Note: This section of notes will show you how to derive the quadratic formula from the quadratic equation. Below this paragraph is a table with them listed out. Make sure you know the difference between the two before starting to derive the formula. I will try and make these notes as easy and short as possible, with step-by-step instructions.

Table 1.1:

Quadratic Equation:	$ax^2+bx+c=0$
Quadratic Formula:	$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$

Memorize These

Now we are going to turn this: $ax^2+bx+c=0$ into this:

$$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$$

Step # 1: $ax^2+bx+c=0$ (1st coefficient, 2nd coefficient, 3rd coefficient)

First we need to take the first coefficient (ax^2) and get it by itself (turning it into (x^2)). That means we need to divide everything by (a) in order to get (x^2) by itself.