Quadratic Formula

Used to find the solutions to any quadratic equation of the form,

$$f(x) = ax^2 + bx + c$$

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

Example: $g(x) = 2x^2 - 4x - 3$

$$x = \frac{-(-4) \pm \sqrt{(-4)^2 - 4(2)(-3)}}{2(2)}$$

$$x = \frac{2 + \sqrt{10}}{2}, \frac{2 - \sqrt{10}}{2}$$