The Quadratic Equation Worksheet

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When a quadratic equation is in the form of $ax^2 + bx + c = 0$, then

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

Example: When $x^2 + 6x + 5 = 0$, then **a** = 1, **b** = 6 and **c** = 5, so

$$x = \frac{-6 \pm \sqrt{6^2 - (4)(1)(5)}}{(2)(1)} = \frac{-6 \pm \sqrt{36 - 20}}{2} = \frac{-6 \pm \sqrt{16}}{2} = \frac{-6 \pm 4}{2} =$$

$$\frac{-6 + 4}{2} = \frac{-2}{2} = -1 \text{ and } \frac{-6 - 4}{2} = \frac{-10}{2} = -5$$

Practice Exercises:

1) Solve using the quadratic equation: $x^2 + 3x + 2 = 0$

2) Solve using the quadratic equation: $2x^2 + 5x - 3 = 0$

3) Solve using the quadratic equation: $x^2 - 5x + 3 = 0$

4) Solve using the quadratic equation: $3x^2 + 2x - 5 = 0$