

Solving a Quadratic Equation using the...

1. Isolate the x^2 term.
2. Take the square root of both sides.
3. Don't forget your negative solution!

$$2x^2 + 14 = 70$$

$$x^2 + 2x = 48$$

1. Put the equation in standard form ($ax^2 + bx + c = 0$).
2. If $a = 1$ find factors of c that add or subtract to get b .
3. Set each factor = 0
4. Solve for x .

1. Bring the x^2 and x term to one side.
2. Take $\frac{1}{2}$ of b , square it and add it to both sides.
3. Factor and write as a square.
4. Take square root of both sides.
5. Isolate x .

$$x^2 + 30x + 104 = 0$$

$$3x^2 + 4x = 10$$

1. Put the equation in standard form ($ax^2 + bx + c = 0$).
2. Put a , b , and c into
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$
3. Simplify.

**Solving a Quadratic Equation
using the...**

**Factoring
Method**

**Square
Root
Method**

**Quadratic
Formula**

**Completing
the Square
Method**

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Steps:

$$2x^2 + 14 = 70$$

$$x^2 + 2x = 48$$

Steps:

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$$x^2 + 30x + 104 = 0$$

$$3x^2 + 4x = 10$$

Steps:

