

Bellwork

Set up the Quadratic Formula:

1. $x^2 + 2x - 3$

2. $3x^2 - 6x + 5$

The Quadratic Formula from Scratch

Complete the Square on the standard form of a quadratic equation and come up with the Quadratic Formula:

$$ax^2 + bx + c = 0$$

Solving using the Quadratic Formula

Procedure:

1. Put the equation into standard form and set the given equation = 0
2. Set up the Quadratic Formula.
3. Simplify the expression under the square root.

Notes:

- Always simplify the radical if possible!
- If a neg under the square root pull it out and call it i .

4. Reduce if possible.

Examples

Solve each of the following using the Quadratic Formula:

1. $x^2 + 7x + 9 = 0$

2. $(x+1)(x-2) = 0$

Examples

Solve each of the following using the Quadratic Formula:

3. $5x^2 + 16x - 6 = 3$

4. $3x^2 - 3 = -5x - 1$

Examples

Solve each of the following using the Quadratic Formula:

5. $-3 = 7x + 2x^2$

6. $-6x^2 + 3x = -19$