

Do Now: Solve for the x *intercepts* by completing the square, in simplest radical form: $x^2 + 6x - 3 = 0$

AIM: SOLVING QUADRATIC EQUATIONS USING THE QUADRATIC FORMULA (Day 1)

1. Solve for the x *intercepts* by using **the quadratic formula**, in simplest radical form: $x^2 + 6x - 3 = 0$

a =

b =

c =

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

Quadratic Formula

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

Steps for Solving Quadratics Equations Using the Quadratic Formula:

1. Put quadratic equation into standard form.
2. Identify the a, b & c values.
3. Write down the quadratic formula and substitute a, b, and c values into the formula.
4. Evaluate the formula and express answer according to directions. (simplest radical form or decimals)

2. To the nearest tenth, solve for the roots: $x^2 = 5x + 4$

a =

b =

c =

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

3. To the nearest hundredth, solve for the x-intercepts: $2x^2 + 7x = 3$

4. Write the solution set for the equation in simplest radical form: $3x^2 + 2 = -6x$

5. To the nearest hundredth, write the solution set for the equation: $9x^2 + 4x = 16$