10.6: Solve Quadratic Equations Using the Quadratic Formula
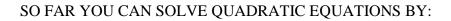**Goals:** *Solve a quadratic equation using the quadratic formula

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SO FAR YOU CAN SOLVE QUADRATIC EQUATIONS BY:

1.

2.

3.

**Remember that in order to solve, you are really being asked to find x when…

Quadratic Formula:

Solve using the quadratic formula:

Ex: $3x^2 + 5x - 8 = 0$ **Ex:** $2x^2 + 7x = 9$

Ex: $x^2 - 8x = -16$ **Ex:** $2x^2 - 7 = x$

Ex: $3x^2 - 1 - x$ **Ex:** $3n^2 - 5n = -1$ **Ex:** $4z^2 = 7z + 2$

Ex: For the period 1971-2001 the number y, of films produced in the world can be modeled by the function $y = 10x^2 - 94x + 3900$, where x is the number of years since 1971. In what year were 4200 films produced?

Ex: For the period 1990-2003, the number of book titles published by a small publishing company can be modeled by $y = 0.5x^2 + 4x + 19$, where x is the number of years since 1990. In what year were 80 books published?