A1 S2 w9d2 More 9-6 Quadratic Formula

Algebra 1 Week 9 Tue Warm Up

1. Put the following quadratic expressions into standard form, then find a, b, and c.

A. $12 = -7x - x^2$

B. $-3x^2 + 4 = -5x$

2. Solve by completing the square.

$x^2 + 10x = -8$

3. Put in order from widest to most narrow.

$f(x) = -x^2$ $f(x) = -3x^2 + 5$ $f(x) = \frac{4}{5}x^2 - 1$

4. Solve by "unsquaring".

$2x^2 - 1 = 35$

Skill 18: Guided Practice

Solve a quadratic equation using the quadratic formula and give the answer in both decimal form and simplified radical form.

1. Solve $x^2 - 8x + 14 = 0$

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

a = b = c =

Substitute a, b & c values into the formula.

Use order of operations to simplify.

Get decimal answers, rounded to nearest hundredth.

Simplify the radical.

Reduce the problem.

Skill 18: Guided practice continued

2. Solve $-3x^2 + 6x + 5 = 0$ $\qquad x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

a= b= c=

Substitute a, b & c values into the formula.

Use order of operations to simplify.

Get decimal answers, rounded to nearest hundredth.

Simplify the radical.

Reduce the problem.

A1 S2 w9d2 More 9-6 Quadratic Formula

p 586: 7, 9, 11

Use the quadratic formula to solve each equation. Express answers as decimals rounded to the nearest hundredth AND as simplified radicals.

7. $2x^2 + 5x + 3 = 0$

9. $4x^2 + 7x - 15 = 0$

11. $18x^2 - 45x - 50 = 0$

p 579: 16, 18

Solve each equation by completing the square. If necessary, round to the nearest hundredth.

16. $a^2 - 2a - 35 = 0$

18. $w^2 - 14w + 13 = 0$