

Assignment 16

Practice with the Quadratic Formula

Use the Quadratic Formula

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

to solve the following equations.

1. $x^2 - 3x - 1 = 0$

2. $2x^2 - 4x - 1 = 0$

3. $-2x^2 + 6x - 3 = 0$

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

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

6. $-2x^2 - 4x = 1$

Name _____

Simplify each radical expression.

1. $\sqrt{x^2 y^4 z^6}$

2. $\sqrt{xy^3 z^5}$

3. $\sqrt{12x^2 y^3 z^4}$

4. $\sqrt{25xy^6 z^5}$

5. $\sqrt{18x^3 yz^6}$

Practice with Completing the Square

Solve by the Completing the Square Method.

1. $x^2 + x = 5 - x$

2. $x^2 = 24 - 4x$

3. $x^2 - 6 = 18 + 8x$

Practice with “Just the x squared type”

Solve by isolating the squared term and taking plus or minus the square root.

1. $2x^2 - 10 = 18 + x^2$

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

3. $4x^2 - 20 = 0$

Never Too Early Review “Final Exam”

Hopefully you are getting better at these.

1. Simplify: $2x^3 \cdot y^2 \cdot 5y^4$

2. Simplify: $(2x - 1) + (3x^2 - 9x - 2)$

3. Simplify: $(x^2 + 2x) - (x^4 + x^2 - 2x - 3)$

4. Simplify: $\left(\frac{5x^5y^2}{y^5}\right)^3$