

Topic 8.6

Using Quadratic Techniques to Solve Polynomial Equations

Homework

Name: _____

Date: _____

Write each equation in quadratic form, if possible.

1. $x^4 - 2x^2 + 14 = 0$

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

3. $8x = 4\sqrt{x} + 6$

Solve each equation.

4. $x^4 - 5x^2 - 36 = 0$

5. $2x^3 - 16x^2 = -32x$

6. $3x + 8 = 14\sqrt{x}$

7. $8x^5 = 18x^4 + 5x^3$

8. $x^3 + x^2 = 24x - 36$

9. $x^{\frac{2}{3}} - x^{\frac{1}{3}} - 20 = 0$