

Name _____ Per _____ Col _____ HW# _____

Algebra 2 Worksheet 2-4

Solve each equation.

1. $2x^2 - 6 = 42$

2. $x^2 - 14x + 49 = 18$

Complete the square for each expression. Write the resulting expression as a binomial squared.

3. $x^2 - 4x + \underline{\hspace{2cm}} =$

4. $x^2 + 12x + \underline{\hspace{2cm}} =$

Solve each equation by completing the square.

5. $-3x^2 + 18x = -30$

6. $4x^2 = -12x + 4$

Use completing the square to write each function in vertex form, and identify its vertex.

7. $f(x) = x^2 - 6x - 2$

8. $f(x) = x^2 - 4x + 1$

9. $h(x) = 3x^2 - 6x - 15$

10. $f(x) = -2x^2 - 16x + 4$