Name: _____ Date: _____

Solving Quadratic Equations by Completing the Square

Solve each equation.

1. $x^2 - 10x - 54 = 0$

2. $x^2 - 18x - 85 = 0$

3. $x^2 + 20x - 73 = 0$

4. $x^2 + 6x - 90 = -8$

5. $x^2 - 10x - 56 = 6$

6. $x^2 - 14x - 75 = 8$

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

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

3. $4x^2 + 32x + 16 = 0$

4. $3x^2 + 6x = 12$

5. The length of a rectangle is 4 cm greater than its width. If the area of the rectangle is 108 cm.^{2}, what are the approximate dimensions of the rectangle?

6. If the volume of this box is 100 cm.^{3}, find the dimensions of the box.