Chapter Review

Solve by isolating the perfect square.

1) $m^2 - 10m + 25 = 16$

Solve by isolating the perfect square.

2) $6(x+9)^2 - 4 = 32$

Solve by isolating the perfect square.

3) $\frac{1}{5}x^2 - \frac{5}{49} = 0$

Solve by factoring.

4) $7y^3 - 28y = 0$

Solve by completing the square

5) $y^2 - 24y + 23 = 0$

Solve by completing the square

6) $5x^2 + 8x + 1 = 0$

Quadratic Formula

This formula helps you solve for x

$$ax^2 + bx + c = 0$$

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

Solve by using the quadratic formula

7) $3x^2 + x - 4 = 0$

Solve by using the quadratic formula

9) $x^2 = x - 8$

FINDING MINUMUMS AND MAXIMUMS

WITHOUT GRAPHING, find the coordinates of the vertex. Then give the equation of the axis of symmetry and the least value of the function.

10) $f(x) = 5x^2 - 10x + 4$

Find the indicated information:

a) the number x-intercepts
b) whether it's vertex lies above, below, or on the x-axis (without finding the vertex)

11) $7x + 2 - 3x^2$