

# HW 41

p19w

$$47. \quad x^2 = x + 2$$

$$x^2 - x - 2 = 0$$

$$(x-2)(x+1) = 0$$

$$\boxed{x = 2, -1}$$

$$93. \quad y = -\frac{1}{10}(30)^2 + 3(30) + 4$$

$$y = 6 \quad \text{yes!}$$

$$48. \quad x^2 + 2x + 1 = 7x - 5$$

$$x^2 - 5x + 6 = 0$$

$$(x-2)(x-3) = 0$$

$$\boxed{x = 2, 3}$$

$$97. \quad a) \quad C = 12.30x + 98000$$

$$b) \quad R = 17.98x$$

$$c) \quad P = 17.98x - (12.30x + 98000)$$

$$P = 5.68x - 98,000$$

$$49. \quad x^4 - 2x^2 = 2x^2$$

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

$$x^2(x^2 - 4) = 0$$

$$\boxed{x = 0, \pm 2}$$

$$98. \quad a) \quad C = 0.95x + 4000$$

$$71. \quad (-\infty, \infty)$$

$$72. \quad (-\infty, \infty)$$

$$73. \quad (-\infty, 0) \cup (0, \infty)$$

$$t \neq 0$$

$$74. \quad (-\infty, -5) \cup (-5, \infty)$$

$$y \neq -5$$

$$75. \quad y - 10 \geq 0$$

$$y \geq 10$$

$$[10, \infty)$$