Math 160 Quiz 3 Name: _____

July 9, 2002

This quiz is worth 10 points. Show all work for credit.

1. Define $\odot$ to be $< a, b > \odot < c, d >= a^2c - \frac{b}{d}$.

   (a) Evaluate $< -3, 49 > \odot < 8, 7 >$.

   (b) Solve for x: $< 10, 12 > \odot < x, 6 >= 1898$.

2. Of the four ways to solve equations, choose the BEST method, (do not solve):

   (a) $3x^3 + 17 = sin(25)$

   (b) $xe^x = 0$

   (c) $(x+7)^2(x-2) + (x-6)(x+1)^2 = 0$

   (d) $(x+7)^2(x-2) + (x-6)(x-2)^2 = 4$

3. Solve for x algebraically: $(x+2)(x-1) - 7.1 = -1$.

4. (Bonus @2 points) Solve for x algebraically: $(x+1)^2(x-7) + x + 1 = 0$.