MAT 111 – Take Home Quiz 1.1/1.3 Name _____

Solve each of the following. Show ALL work. If a radical remains, leave your answer as a simplified radical in lowest terms. Circle/Box your final answer.

1. $5 - 6x = 2x - 7$

2. $x + 3 + 4(2x - 2) = 9x - 5$

3. $\frac{6}{x-5} + \frac{6}{(x-6)(x-5)} = \frac{2}{x-6}$

4. Use the zero-factor property to solve: $x^2 + 16x + 63 = 0$

5. Use the square root property to solve: $(x + 5)^2 = 14$

6. Solve by completing the square: $x^2 + 12x + 24 = 0$

7. Use the quadratic formula to solve: $7x^2 + 5x - 2 = 0$