**HW 2-1 Number System and Complex Numbers**

**Classify each into their appropriate category of the number system.**

**Simplify each radical.**

**HW 2-2 Complex Numbers**

**Simplify and write with the correct complex number notation.**

**HW 2-3 Quadratic Formula**

**Part 1: Use the quadratic Formula to solve the following problems. Be sure to simplify!!**

1. 4x2 + 11x – 20 = 0 2. x2 – 5x – 24 = 0

3. x2 - 3x – 3=0 4. x2 + 5x + 5 = 0

5. 4x2 +8x – 1 = 0 6. 2x2 -14x + 23 = 0

7. x2 – 10x +29 = 0 8. 3x2 – 18x + 30 = 0

**Part 2: State the discriminant and describe the roots for each of the following:**

9. 7x2 – 3x + 1 10. 8x2 – 9

11. 2x2 + x – 10 12. 5x2 + 2x + 7

**HW 2-5 Completing the Square**

Solve by completing the square.

1.

**HW 2-6 Completing the Square**

1.

1.
2.