**9.8 HW Completing the Square Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Directions: Find the value of c that completes the square.**

1) x2 + 6x + c 2) x2 – 10x + c 3) x2 – 7x + c

4) x2 - $\frac{1}{2}$ x + c 5) x2 + 40x + c 6) x2 + 28x + c

**Directions: Do the first 3 steps of completing the square. (Stop after you have factored & simplified).**

7) x2 + 14x – 51 = 0 8) x2 – 12x + 11 = 0

9) x2 + 14x – 38 = 0 10) x2 – 10x – 26 = 0

11) x2 – 4x – 6 = 0 12) x2 + 3x – 20 = 0

**Directions: Write the equation in standard form.**

13) x2 + y2 – 8x + 10y – 12 = 0 14) x2 + y2 – 5x + 11y – 6 = 0

15) x2 + y2 + 14x + 14y = 0 16) x2 + y2 – 6x + 20y – 18 = 0

17) x2 + y2 – 7x – 6.25 = 0 18) x2 + y2 + 10x + 16y + 3 = 0

**Directions: Find the center and radius of the circle.**

19) x2 + y2 + 18y + 17 = 0 20) x2 + y2 – 13x – 10y + 18.25 = 0