**9.9 HW Standard Form of a Circle Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

1) x2 + y2 + 12x – 6y – 3 = 0 2) x2 + y2 + 7x – 15y – 40 = 0

3) x2 + y2 + 30x – 30y = 0 4) x2 + y2 + 18x – 27y + 2 = 0

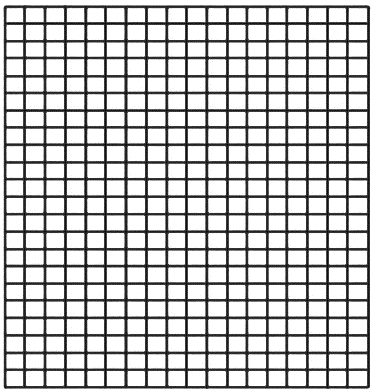
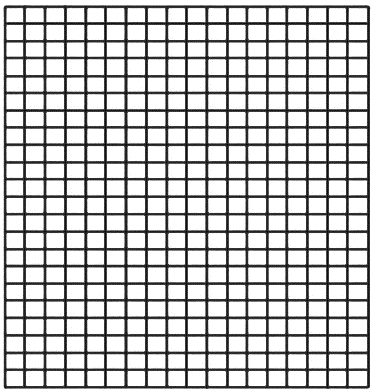
5) 3x2 + 3y2 + 27x – 24y + 12 = 0 6) x2 + y2 + 7x – 16y + 8 = 0

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

7) x2 + y2 – 24y + 63 = 0 8) x2 + y2 + 10x – 12y – 3 = 0

**Directions: Graph the circle.**

9) x2 + y2 – 8x + 2y – 19 = 0 10) x2 + y2 – 4x – 6y + 4 = 0



**Directions: Complete all questions.**

**1) Find the equation in standard form.**

**2) Find the radius.**

**3) Find the exact area of the circle.**

11) x2 + y2 + 8x – 4y + 4 = 0 12) x2 + y2 = 25

**Directions: Complete all questions.**

**1) Find the equation in standard form.**

**2) Find the radius.**

**3) Find the exact volume of the cylinder if the circle is pulled 10 units through space (at a right angle).**

13) x2 + y2 – 12x + 27 = 0 14) x2 + y2 – 18x + 10y + 94 = 0