**COMPLETING THE SQUARE** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objective***: the students will be able to rewrite the equation of a circle into STANDARD FORM by completing the square.*

Use the information provided to write the standard form equation of each circle. Then state the radius and center.

1. 
2. 
3. 
4. 

**STEPS for rewriting an equation of a circle in standard form:**

|  |  |
| --- | --- |
| You are given the following equation: |  |
| Move the constant over to the other side. |  |
| Group the *x*-variables together.  Group the *y*-variables together. |  |
| Space inside your groupings, because this is where you'll add the squaring term.  Take the *x*-term coefficient, “divide by 2 and square it”! Add this special number to both sides of the equation.  Take the *y*-term coefficient, “divide by 2 and square it”! Add this special number to both sides of the equation. |  |
| Factor the left side, and simplify the right side. |  |
| State the center and radius. | center: *(-3, 2)*  radius: *5* |