Equations of Circles   **Name:** _____
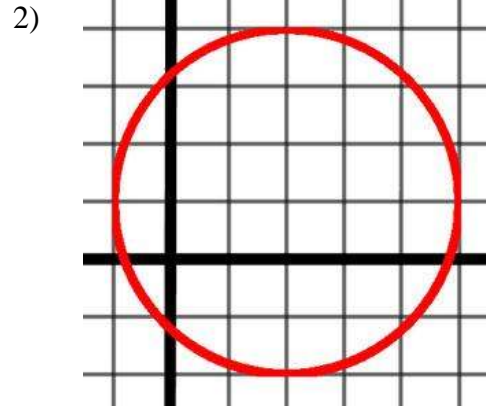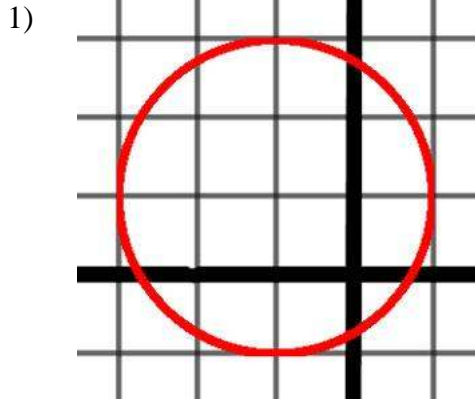
Given the graphs of the following circles, write their equations.

1)

2)

Use the given information to solve each problem.

3)   A cell tower was placed at (-2, 3) and a customer was located at (5, -21). If the tower is the center of a circle and the customer is a point on the circle, write the equation of a circle.
[Hint: Find the distance between the center and the point on the circle.]

4)   Two towers were placed at two locations: (3, 10) and (11, -4). Locate the point that is halfway between them and call it the center of a circle. If the towers are points on a circle, write the equation of the circle

5)   A center of a circle is at (4, -5). The circle passes through (2, 1). Explain the steps you need to take to find the equation of the circle.

6)   Use your explanation for #5 to actually find the equation of the circle.