- 1. Find an equation, in center-radius form, for each circle. Then graph the circle.
 - (a) Center (0,0), radius 6. (b) Center (0,-3), radius 7. (c) Center (-3,-2), radius 6.

2. Use the given graph to determine the equation of the circle in both center-radius form and in general form.



3. Determine whether or not each equation has a non-trivial circle as its graph. If it does, find its center and radius. Otherwise, describe its graph.

(a)
$$x^2 + y^2 - 12x + 10y = -25$$
 (b) $x^2 + y^2 - 6x - 6y + 18 = 0$

4. The an equation in center-radius form for a circle having a diameter with endpoints (-1, 2) and (11, 7).

5. Find all points (x, y) with x = y that are 4 units from the point (1, 3).

6. Find all values of y such that the distance between (3, y) and (-2, 9) is 12.