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Homework Key

Circles

1.
$$x^2 + y^2 = 16$$
 Center = (0,0) & Radius = 4

2.
$$x^2 + y^2 + 6x - 8y - 39 = 0$$
 Center = (-3,4) & Radius = 8

3.
$$x^2 + y^2 - 8x + 12y - 8 = 0$$
 Center = $(4, -6)$ & Radius = $2\sqrt{15}$ or $\sqrt{60}$

4.
$$x^2 + y^2 - 12x - 2y - 12 = 0$$
 Center = (6,1) & Radius = 7

5.
$$x^2 + y^2 + 7x + 13y - 9 = 0$$
 Center = $(-3.5, -6.5)$ & Radius = $\sqrt{63.5}$

6. Center is on the y axis, Points (1,4) & (-3,2) Center = (0,1) & Radius =
$$\sqrt{10}$$

7. Points
$$(3,1) \& (0,0) \& (8,4)$$
 Center = $(-5,20) \& Radius = \sqrt{425}$ or 20.615