

Conic Sections - Circles

1. Find the center and radius for each circle.

a) $(x+1)^2 + (y-2)^2 = 49$

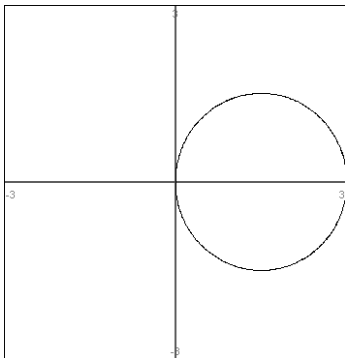
b) $x^2 + \left(y - \frac{1}{2}\right)^2 = 1$

c) $x^2 + y^2 = 5$

d) $\left(x + \frac{1}{2}\right)^2 + \left(y - \frac{3}{2}\right)^2 = \frac{9}{4}$

2. Find an equation for the circle.

a)



b) Center is at $(4, -1)$ and tangent to the line $y = 3$.

c) Center is at $(-1, -3)$ and tangent to the line $3x + 4y = 10$.

3. Find the standard equation for the circle and sketch the graph.

$$2x^2 + 2y^2 - 8x + 12y + 2 = 0$$

4. Find the standard equation for the circle that contains the three points $(2, 6)$, $(3, -1)$ and $(-5, 5)$.