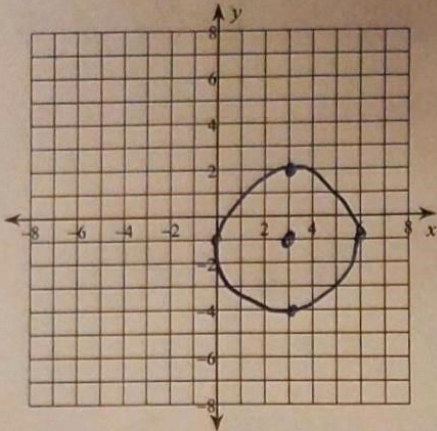


Circles Day 1 Refresher

Identify the center and radius of each. Then sketch the graph.

1) $(x-3)^2 + (y+1)^2 = 9$



center: $(\underline{3}, \underline{-1})$
radius: $\underline{3}$

Identify the center and radius of each.

2) $(x+9)^2 + (y+16)^2 = 1$

center: $(\underline{-9}, \underline{-16})$
radius: $\underline{1}$

3) $(x-10)^2 + (y-5)^2 = 66$

center: $(\underline{10}, \underline{5})$
radius: $\sqrt{66}$ or 8.1

Use the information provided to write the standard form equation of each circle. $(x-h)^2 + (y-k)^2 = r^2$

4) Center: $(4, 8)$
Radius: 8

$$(x-4)^2 + (y-8)^2 = 64$$

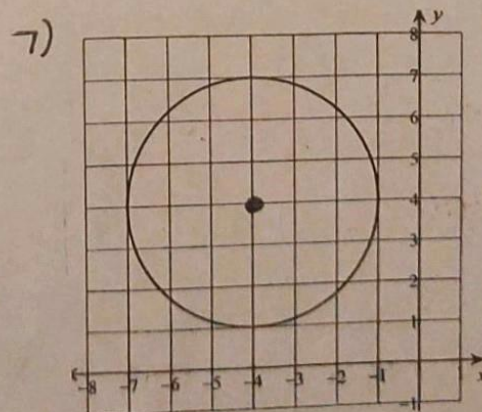
5) Center: $(10, -9)$
Radius: $\sqrt{2}$

$$(x-10)^2 + (y+9)^2 = 2$$

6) Center: $(\overset{h}{-3}, \overset{k}{-9})$ x y
Point on Circle: $(-1, -11)$

$$\begin{aligned} \textcircled{1} \quad (x-h)^2 + (y-k)^2 &= r^2 \\ (-1+3)^2 + (-11+9)^2 &= r^2 \\ 8 &= r^2 \end{aligned}$$

$$\textcircled{2} \quad (x+3)^2 + (y+9)^2 = 8$$



center: $(\underline{-4}, \underline{4})$
radius: $\underline{3}$

Equation:
 $(x+4)^2 + (y-4)^2 = 9$