G.G.72: Equations of Circles 2: Write the equation of a circle, given its graph

1. In the accompanying diagram, the center of circle $O$ is (0,0), and the coordinates of point $P$ are (3,4). If $OP$ is a radius, what is the equation of the circle?

2. What is an equation for the circle shown in the graph below?

3. What is an equation of circle $O$ shown in the graph below?

4. Which equation represents circle $A$ shown in the diagram below?

5. What is an equation of circle $O$ shown in the graph below?
6 Which equation represents circle \( K \) shown in the graph below?

7 Which equation represents the circle shown in the accompanying graph?

8 What is an equation of circle \( O \) shown in the graph below?

9 Circle \( O \) is graphed on the set of axes below. Which equation represents circle \( O \)?
10. What is an equation of the circle shown in the graph below?

11. What is the equation for circle $O$ shown in the graph below?

12. What is the equation of circle $O$ shown in the diagram below?

13. The diagram below is a graph of circle $O$.

Which equation represents circle $O$?
14 Which equation represents circle $O$ shown in the graph below?

15 Which equation represents the circle shown in the graph below?

16 Which equation represents the circle shown in the graph below?

17 Write an equation of the circle graphed in the diagram below.
18 Write an equation for circle $O$ shown on the graph below.
1. **ANS:** 
   \[ x^2 + y^2 = 25 \]
   REF: 080823a 

2. **ANS:** 
   \[ x^2 + y^2 = 16 \]
   The radius is 4. \( r^2 = 16 \).
   REF: 061014ge 

3. **ANS:** 
   \[ (x + 2)^2 + (y - 2)^2 = 9 \]
   REF: 011220ge 

4. **ANS:** 
   \[ (x + 4)^2 + (y + 1)^2 = 9 \]
   REF: 011323ge 

5. **ANS:** 
   \[ (x + 2)^2 + (y - 4)^2 = 16 \]
   REF: 081409ge 

6. **ANS:** 
   \[ (x + 5)^2 + (y - 1)^2 = 9 \]
   REF: 080921ge 

7. **ANS:** 
   \[ (x - 1)^2 + (y + 2)^2 = 9 \]
   REF: 010716b 

8. **ANS:** 
   \[ (x + 1)^2 + (y - 3)^2 = 25 \]
   REF: 061110ge 

9. **ANS:** 
   \[ (x + 1)^2 + (y - 3)^2 = 9 \]
   REF: 061408ge 

10. **ANS:** 
    \[ (x + 3)^2 + (y + 4)^2 = 25 \]
    REF: 081212ge
11 ANS: 
\[(x - 3)^2 + (y + 1)^2 = 9\]

REF: 061309ge

12 ANS: 
\[(x + 4)^2 + (y - 1)^2 = 9\]

REF: 081312ge

13 ANS: 
\[(x - 5)^2 + (y + 3)^2 = 16\]

REF: 011514ge

14 ANS: 
\[x^2 + (y + 2)^2 = 25\]

REF: 011415ge

15 ANS: 
\[(x - 2)^2 + y^2 = 9\]

REF: 061510ge

16 ANS: 
\[(x + 5)^2 + (y - 3)^2 = 1\]

REF: 081520ge

17 ANS: 
\[(x - 5)^2 + (y + 4)^2 = 36\]

REF: 081132ge

18 ANS: 
\[(x + 1)^2 + (y - 2)^2 = 36\]

REF: 081034ge