Geometry

11.7 Worksheet - Circles

Name: Key

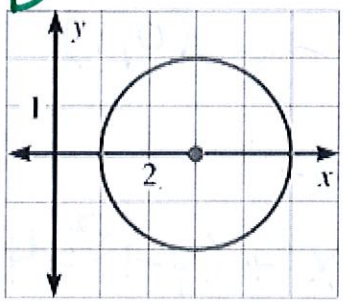
1. The standard equation of a circle with center (h, k) and radius = r is

$(x-h)^2+(y-k)^2=r^2$

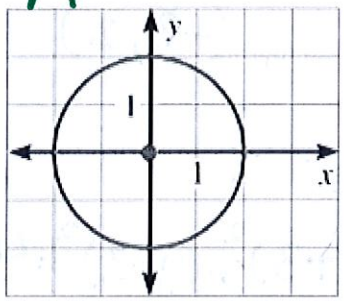
Match each graph with its equation.

A. $x^2 + y^2 = 4$ **B.** $(x - 3)^2 + y^2 = 4$ (3,0) **C.** $(x + 3)^2 + y^2 = 4$ (-3,0)

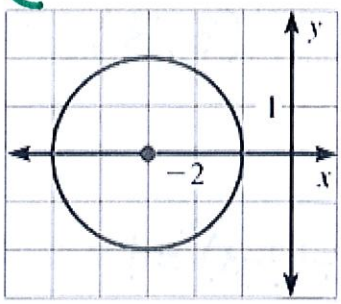
2. B



3. A



4. C

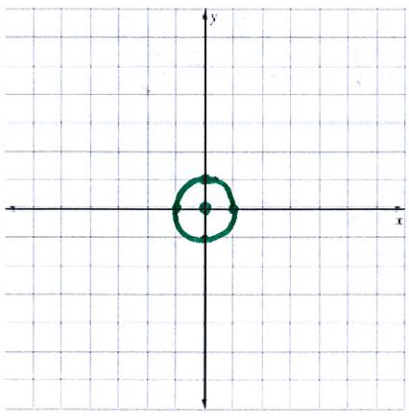


Give the radius and coordinates of the center of the circle with the given equation. Then graph the circle.

5. $x^2 + y^2 = 1$

radius = 1

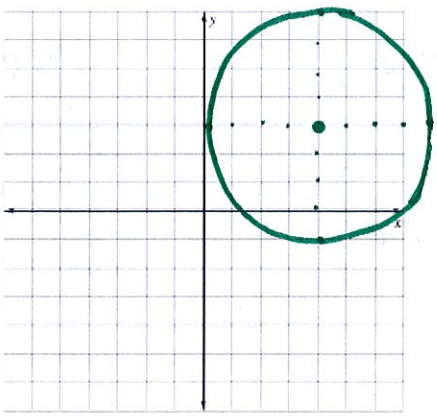
center: (0,0)



6. $(x - 4)^2 + (y - 3)^2 = 16$

radius = 4

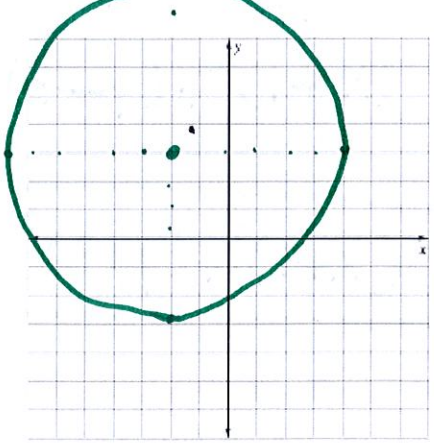
center: (4,3)



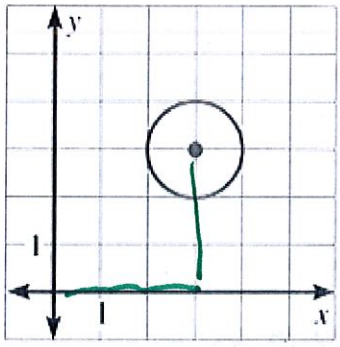
7. $(x + 2)^2 + (y - 3)^2 = 36$

radius = 6

center: (-2,3)



Give the radius and the coordinates of the center of the circle. Then write the standard equation of the circle.

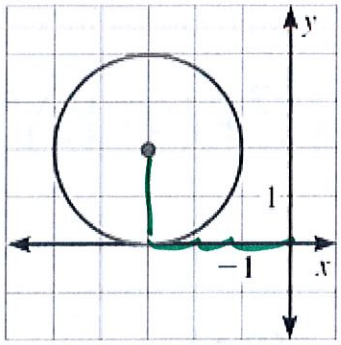
8. 

radius = 1

center: (3,3)

equation:

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

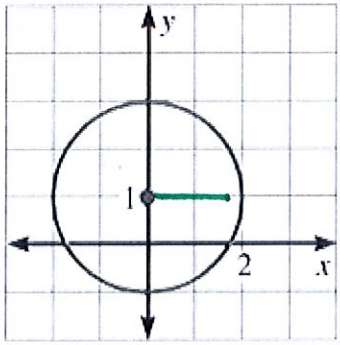
9. 

radius = 2

center: (-3,2)

equation:

$(x+3)^2+(y-2)^2=4$

10. 

radius = 2

center: (0,1)

equation:

$x^2+(y-1)^2=4$

Write the standard equation of a circle with the given center and radius.

11. center: (0, 0) and radius = 10

$(x-0)^2+(y-0)^2=10^2$

$x^2+y^2=100$

12. center: (7, 0) and radius = 4

$(x-7)^2+(y-0)^2=4^2$

$(x-7)^2+y^2=16$

13. center: (-1, -3) and radius = 6

$(x+1)^2+(y+3)^2=6^2$

$(x+1)^2+(y+3)^2=36$

14. center: (-3, 5) and radius = 3

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

$(x+3)^2+(y-5)=9$