Intermediate Algebra Skill

Graphing a Circle Given in Center-Radius Form

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

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

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

3) $(x-1)^2+(y+3)^2=8$

4) $(x+1)^2+(y-1)^2=16$

5) $(x-1)^2+(y-4)^2=9$

6) $(x+4)^2+(y+4)^2=2$

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

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

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

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

11) $x^2+(y+3)^2=16$

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

13) $(x+4)^2+(y-3)^2=1$

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

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

16) $(x-1)^2+(y+2)^2=25$

17) $x^2+(y-1)^2=16$

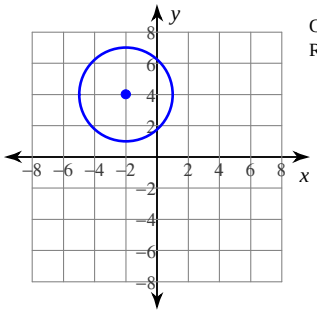
18) $(x-4)^2+(y+2)^2=2$

19) $(x-3)^2+(y+1)^2=16$

20) $(x-1)^2+y^2=36$

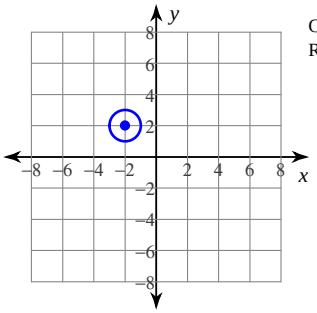
Answers to Graphing a Circle Given in Center-Radius Form

1)



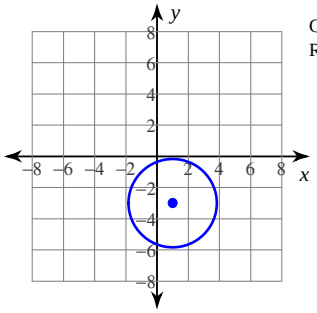
Center: $(-2, 4)$
Radius: 3

2)



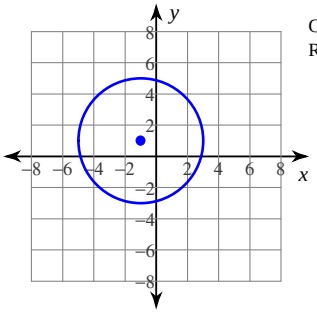
Center: $(-2, 2)$
Radius: 1

3)



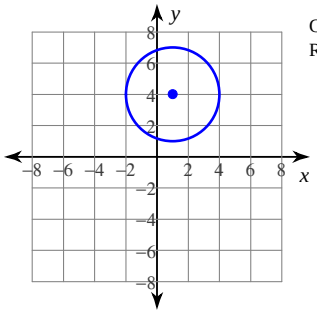
Center: $(1, -3)$
Radius: $2\sqrt{2}$

4)



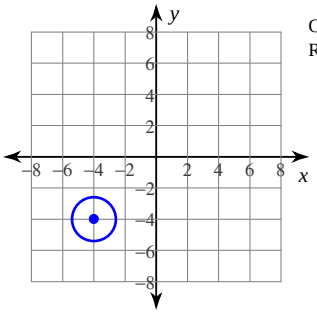
Center: $(-1, 1)$
Radius: 4

5)



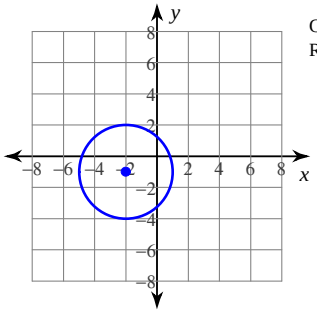
Center: $(1, 4)$
Radius: 3

6)



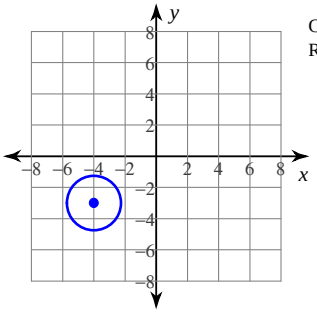
Center: $(-4, -4)$
Radius: $\sqrt{2}$

7)



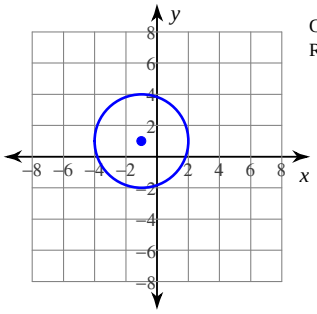
Center: $(-2, -1)$
Radius: 3

8)



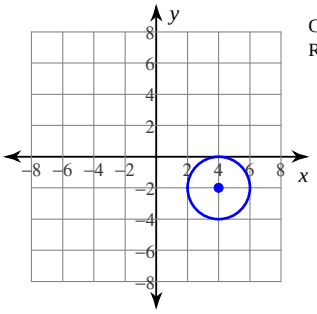
Center: $(-4, -3)$
Radius: $\sqrt{3}$

9)



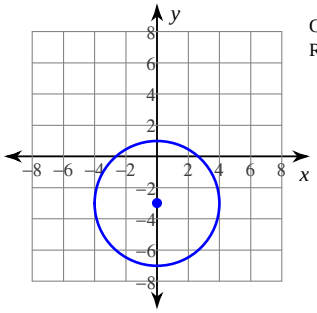
Center: $(-1, 1)$
Radius: 3

10)



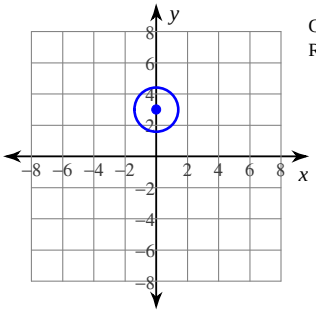
Center: $(4, -2)$
Radius: 2

11)



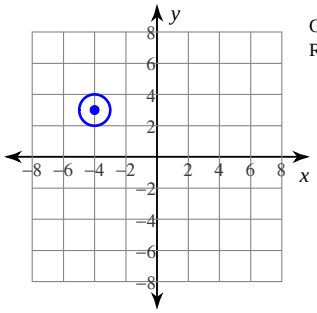
Center: $(0, -3)$
Radius: 4

12)



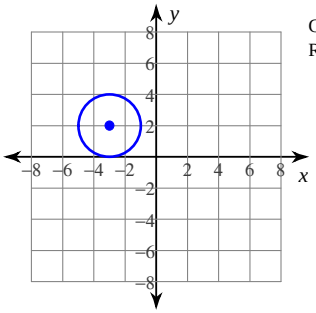
Center: $(0, 3)$
Radius: $\sqrt{2}$

13)



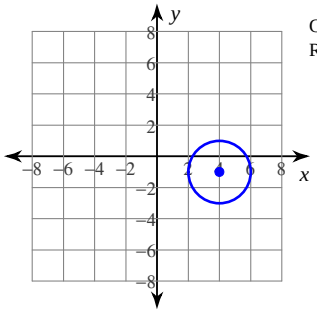
Center: $(-4, 3)$
Radius: 1

14)



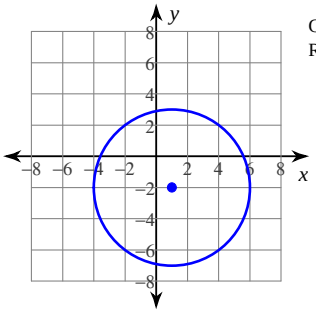
Center: $(-3, 2)$
Radius: 2

15)



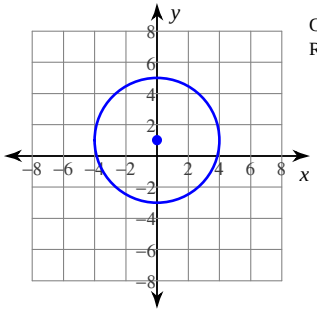
Center: $(4, -1)$
Radius: 2

16)



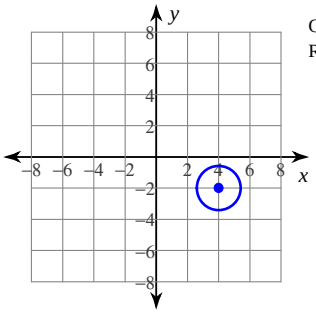
Center: $(1, -2)$
Radius: 5

17)



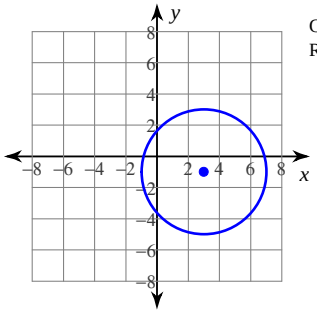
Center: $(0, 1)$
Radius: 4

18)



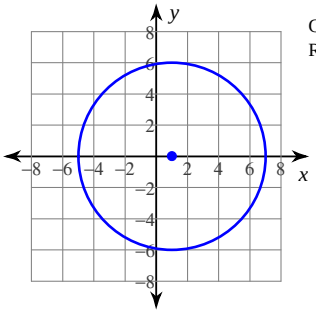
Center: $(4, -2)$
Radius: $\sqrt{2}$

19)



Center: $(3, -1)$
Radius: 4

20)



Center: $(1, 0)$
Radius: 6