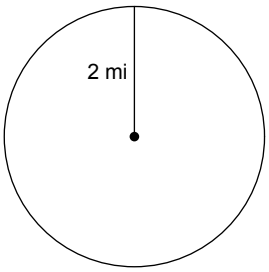
Chapter 10: Circles

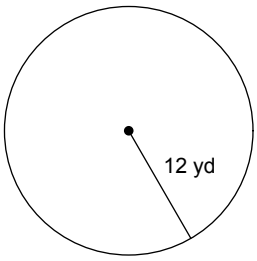
Date_____ Period____

Find the circumference of each circle. Use your calculator's value of π. Round your answer to the nearest tenth.

1)



2)



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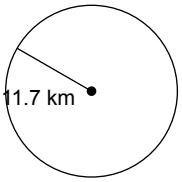

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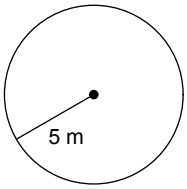

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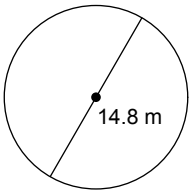

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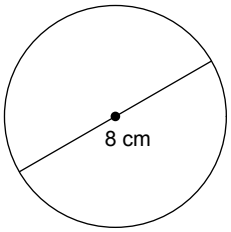

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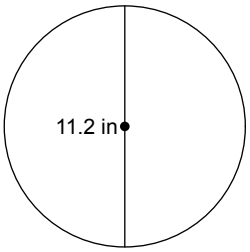

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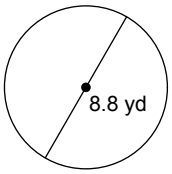
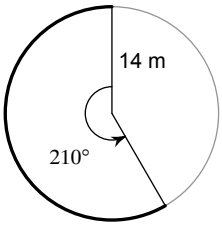
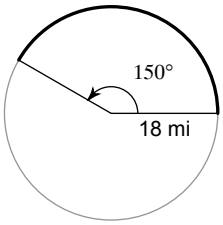


Find the length of each arc.

9)



10)



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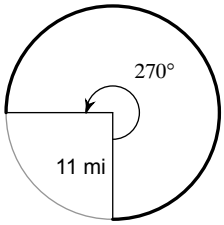

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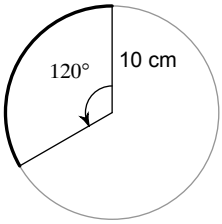


Find the radius of each circle. Use your calculator's value of π. Round your answer to the nearest tenth.

13) circumference = 60.3 yd

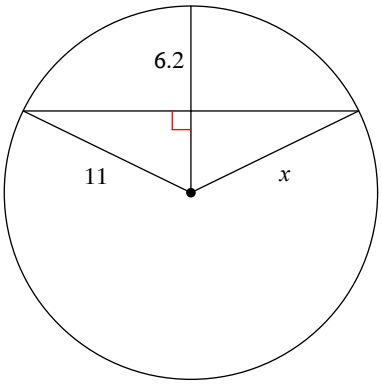
14) circumference = 69.1 km

15) circumference = 47.8 m

16) circumference = 56.5 m

Find the length of the segment indicated. Round your answer to the nearest tenth if necessary.

17)



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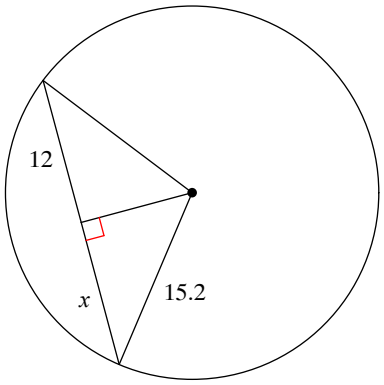

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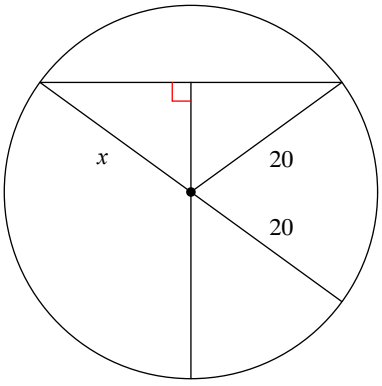

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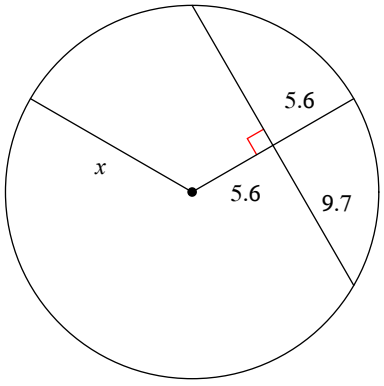

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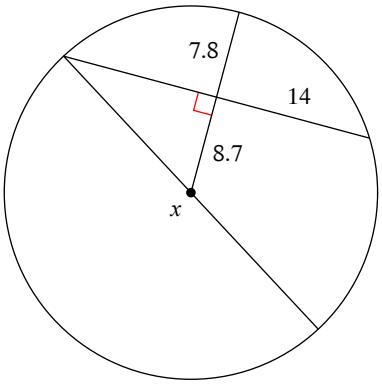

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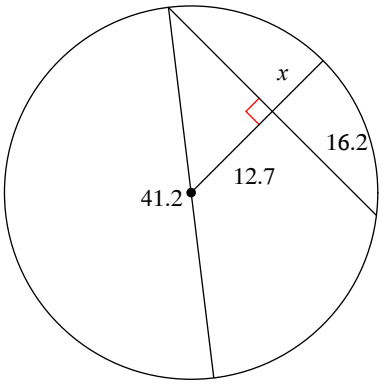

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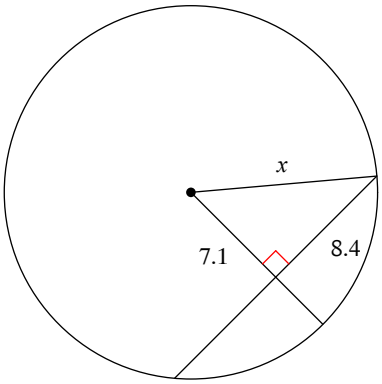

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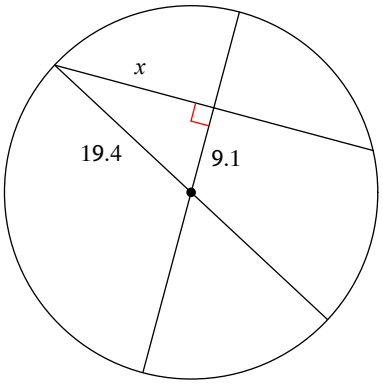
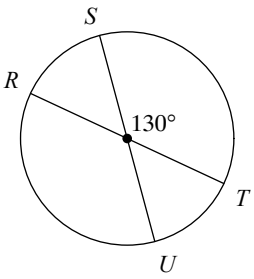
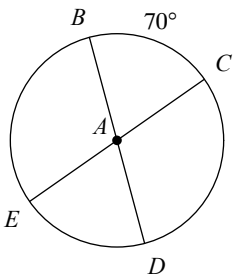


Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

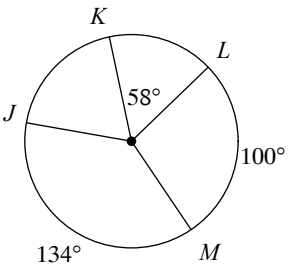
25) $m\overset{\frown}{RS}$



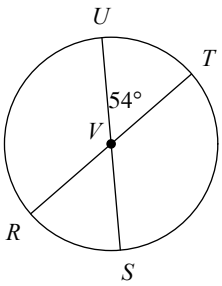
26) $m\angle DAE$



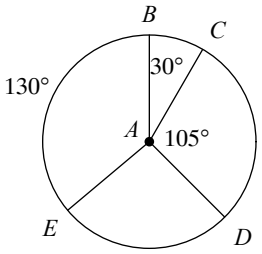
27) $m\overset{\frown}{JK}$



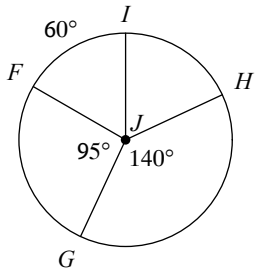
28) $m\angle TVS$



29) $m\angle EAC$

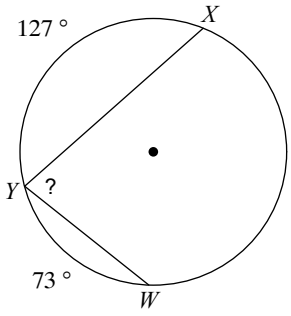


30) $m\angle GJI$

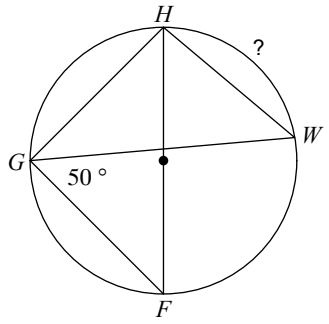


Find the measure of the arc or angle indicated.

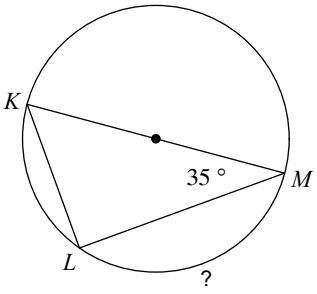
31)



32)



33)



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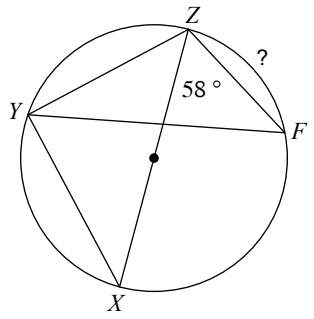

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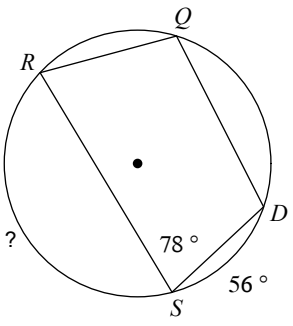
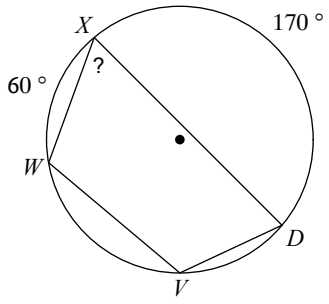
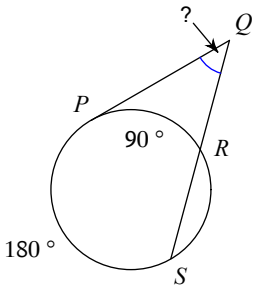


36)

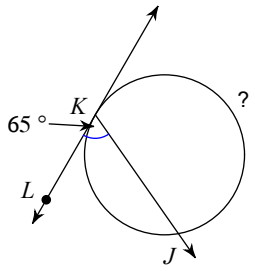


Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

37)



38)



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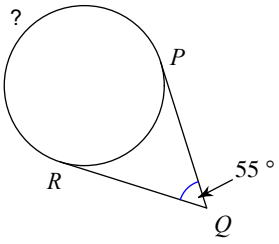
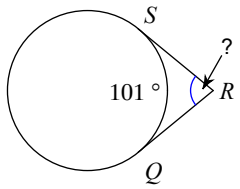


40)



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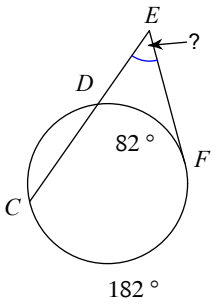

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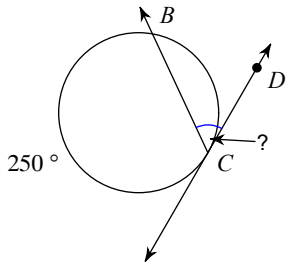

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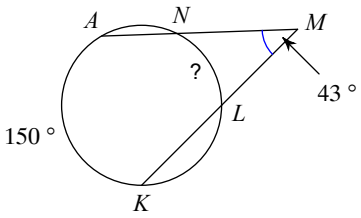
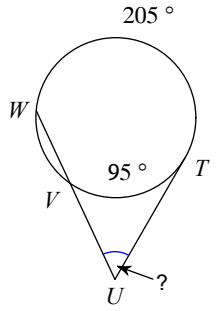


44)



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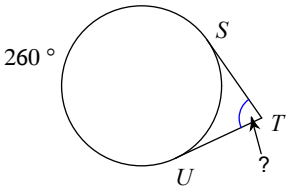

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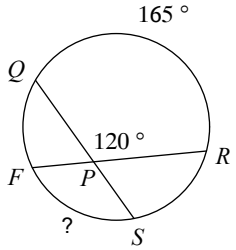
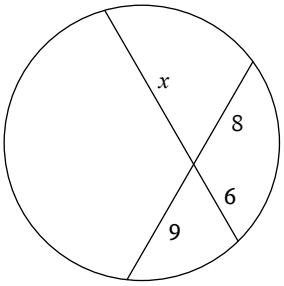
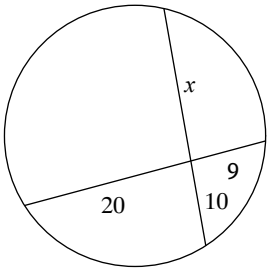


Solve for *x*. Assume that lines which appear tangent are tangent.

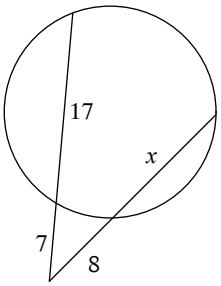
47)



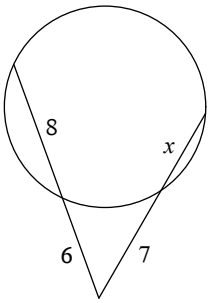
48)



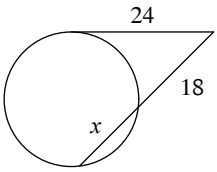
49)



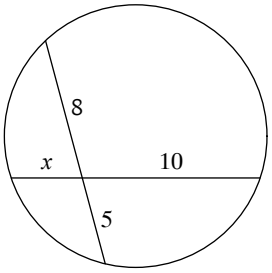
50)



51)



52)



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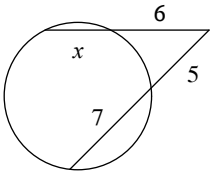
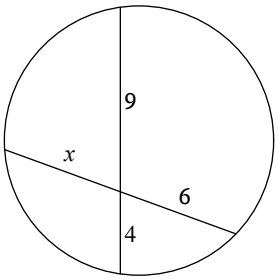


54)



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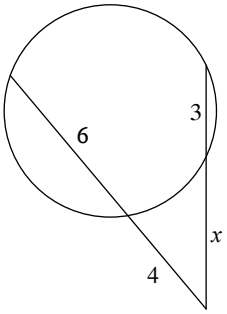
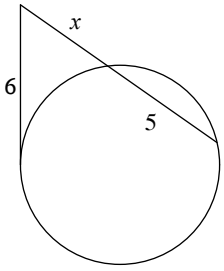
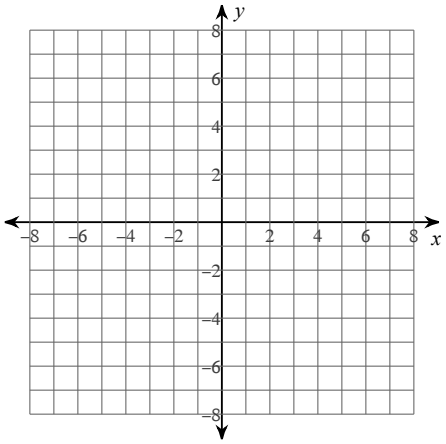


56)

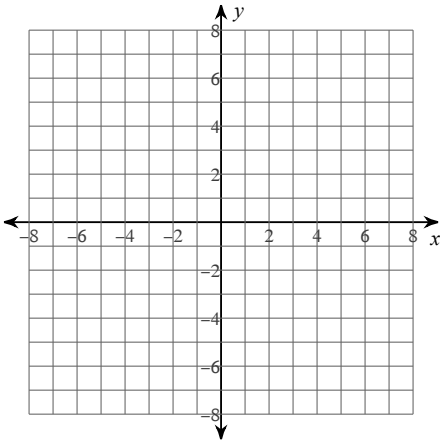


Identify the center and radius of each. Then sketch the graph.

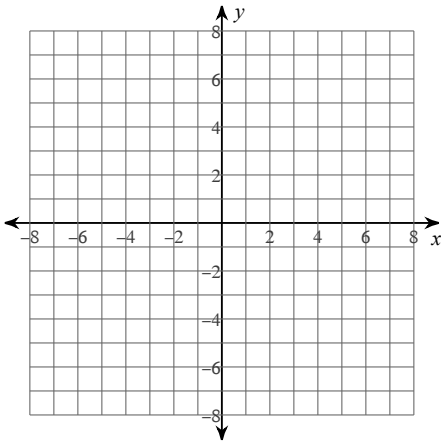
57) $(x-1)^2 + y^2 = 16$



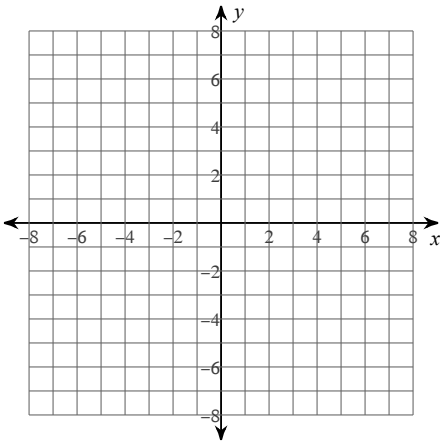
58) $x^2 + (y-1)^2 = 9$



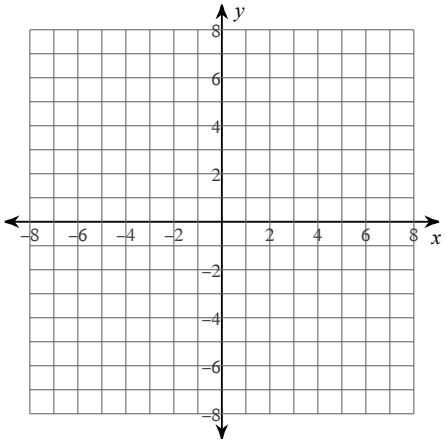
59) $(x-2)^2 + y^2 = 7$



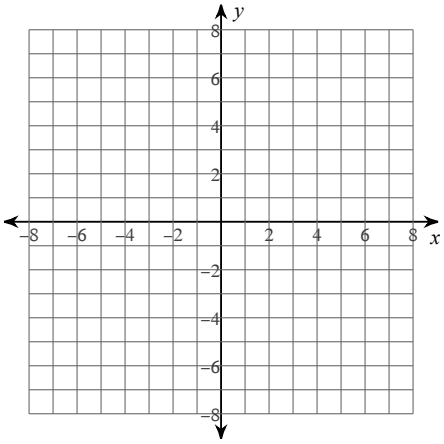
60) $(x-4)^2 + y^2 = 4$



61) $(x-3)^2 + (y+4)^2 = 9$



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



Use the information provided to write the equation of each circle.

63) Center: $(2, -3)$
Radius: 11

64) Center: $(7, -3)$
Radius: 6

65) Center: $(3, 4)$
Radius: 11

66) Center: $(11, -14)$
Radius: 3

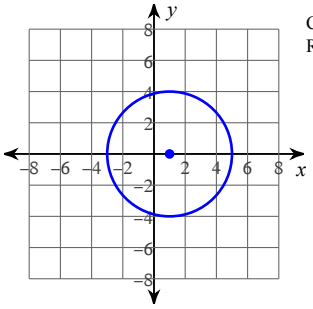
67) Center: $(-2, 14)$
Radius: 2

68) Center: $(-3, 9)$
Radius: 6

Answers to Chapter 10: Circles (ID: 2)

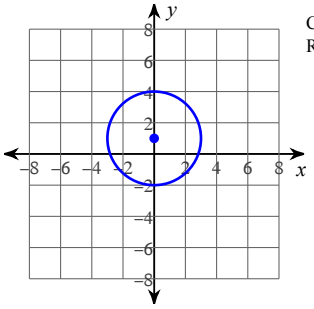
1) 12.6 mi
2) 75.4 yd
3) 73.5 km
4) 31.4 m
5) 46.5 m
6) 25.1 cm
7) 35.2 in
8) 27.6 yd
9) $\frac{49\pi}{3}$ m
10) 15π mi
11) $\frac{33\pi}{2}$ mi
12) $\frac{20\pi}{3}$ cm
13) 9.6 yd
14) 11 km
15) 7.6 m
16) 9 m
17) 11
18) 12
19) 20
20) 11.2
21) 33
22) 7.9
23) 11
24) 17.1
25) 50°
26) 70°
27) 68°
28) 126°
29) 160°
30) 155°
31) 80°
32) 80°
33) 110°
34) 64°
35) 148°
36) 65°
37) 45°
38) 230°
39) 235°
40) 79°
41) 50°
42) 55°
43) 64°
44) 55°
45) 80°
46) 75°
47) 12
48) 18
49) 13
50) 5
51) 14
52) 4
53) 4
54) 6
55) 5
56) 4

57)



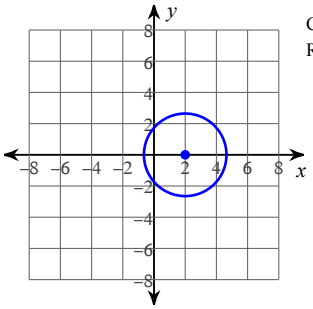
Center: (1, 0)
Radius: 4

58)



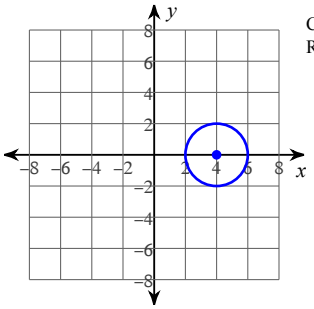
Center: (0, 1)
Radius: 3

59)



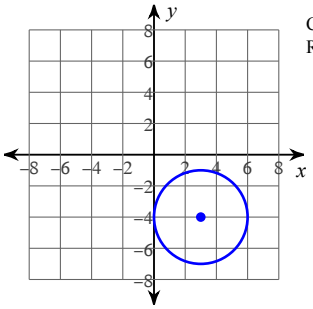
Center: (2, 0)
Radius: $\sqrt{7}$

60)



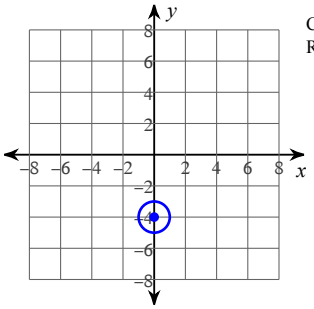
Center: (4, 0)
Radius: 2

61)



Center: (3, –4)
Radius: 3

62)



Center: (0, –4)
Radius: 1

63) $(x-2)^2+(y+3)^2=121$
64) $(x-7)^2+(y+3)^2=36$
65) $(x-3)^2+(y-4)^2=121$
66) $(x-11)^2+(y+14)^2=9$
67) $(x+2)^2+(y-14)^2=4$
68) $(x+3)^2+(y-9)^2=36$