Algebra 2 - Mr. C. - All work on looseleaf. No calculators. Name_____

Week 7 Practice - Ref. Ch. 12-2

Date_____ Period____

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

1) Center: $(3, 1)$
Radius: 5

2) Center: $(16, 8)$
Radius: 1

3) Center: $(6, -11)$
Radius: 5

4) Center: $(-15, -4)$
Radius: $\sqrt{13}$

5) Center: $(-6, 15)$
Radius: 3

6) Center: $(-13, -15)$
Radius: 2

7) Center: $(8, 10)$
Radius: $2\sqrt{6}$

8) Center: $(-4, 3)$
Radius: 10

9) Center: $(0, -4)$
Point on Circle: $(-14, 0)$

10) Center: $(-5, -2)$
Point on Circle: $(7, 4)$

11) Center: $(-4, 13)$
Point on Circle: $(-6, 14)$

12) Center: $(-3, -10)$
Point on Circle: $(-1, -11)$

13) Center: $(-9, -16)$
Point on Circle: $(-9, -14)$

14) Center: $(-8, -1)$
Point on Circle: $(-10, 8)$

15) Center: $(-2, 4)$
Point on Circle: $(-5, 16)$

16) Center: $(-7, -16)$
Point on Circle: $(-10, -16)$

17) Ends of a diameter: $(-9, 1)$ and $(-2, 1)$

18) Ends of a diameter: $(-5, 8)$ and $(0, -6)$

19) Ends of a diameter: $(9, 17)$ and $(-9, -17)$

20) Ends of a diameter: $(-3, 5)$ and $(-7, -10)$

21) Ends of a diameter: $(-4, 14)$ and $(-10, 12)$

22) Ends of a diameter: $(1, 16)$ and $(-11, 6)$

23) Ends of a diameter: $(-12, -5)$ and $(16, 5)$

24) Ends of a diameter: $(2, -8)$ and $(12, 4)$

25) Center: $(-10, -1)$
Tangent to $x = -6$

26) Center: $(-13, 9)$
Tangent to $x = -9$

27) Center: $(7, 12)$
Tangent to $x = 8$

28) Center: $(10, 3)$
Tangent to $y = 1$

29) Center: $(-3, 14)$
Tangent to $x = -6$

30) Center: $(13, -6)$
Tangent to $y = -3$

31) Center: $(-7, -11)$
Tangent to $y = -10$

32) Center: $(-16, -16)$
Tangent to $x = -17$

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

33) $x^2 + (y + 3)^2 = 9$

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

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

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

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

38) $x^2 + y^2 = 1$

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

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

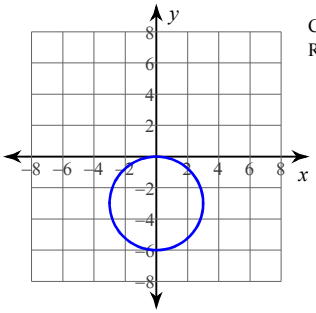
41) $(x + 2)^2 + (y + 2)^2 = 5$

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

Answers to Week 7 Practice - Ref. Ch. 12-2 (ID: 1)

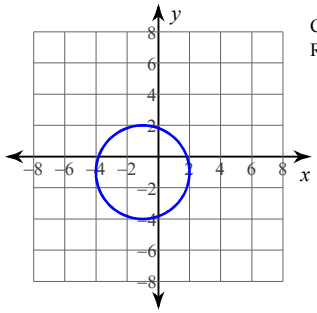
1) $(x-3)^2+(y-1)^2=25$
2) $(x-16)^2+(y-8)^2=1$
3) $(x-6)^2+(y+11)^2=25$
4) $(x+15)^2+(y+4)^2=13$
5) $(x+6)^2+(y-15)^2=9$
6) $(x+13)^2+(y+15)^2=4$
7) $(x-8)^2+(y-10)^2=24$
8) $(x+4)^2+(y-3)^2=100$
9) $x^2+(y+4)^2=212$
10) $(x+5)^2+(y+2)^2=180$
11) $(x+4)^2+(y-13)^2=5$
12) $(x+3)^2+(y+10)^2=5$
13) $(x+9)^2+(y+16)^2=4$
14) $(x+8)^2+(y+1)^2=85$
15) $(x+2)^2+(y-4)^2=153$
16) $(x+7)^2+(y+16)^2=9$
17) $\left(x+\frac{11}{2}\right)^2+(y-1)^2=\frac{49}{4}$
18) $\left(x+\frac{5}{2}\right)^2+(y-1)^2=\frac{221}{4}$
19) $x^2+y^2=370$
20) $(x+5)^2+\left(y+\frac{5}{2}\right)^2=\frac{241}{4}$
21) $(x+7)^2+(y-13)^2=10$
22) $(x+5)^2+(y-11)^2=61$
23) $(x-2)^2+y^2=221$
24) $(x-7)^2+(y+2)^2=61$
25) $(x+10)^2+(y+1)^2=16$
26) $(x+13)^2+(y-9)^2=16$
27) $(x-7)^2+(y-12)^2=1$
28) $(x-10)^2+(y-3)^2=4$
29) $(x+3)^2+(y-14)^2=9$
30) $(x-13)^2+(y+6)^2=9$
31) $(x+7)^2+(y+11)^2=1$
32) $(x+16)^2+(y+16)^2=1$

33)



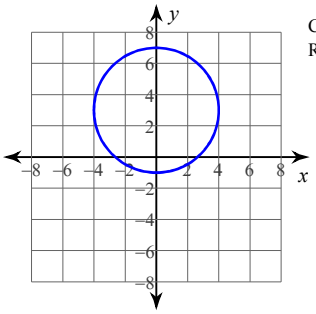
Center: $(0, -3)$
Radius: 3

34)



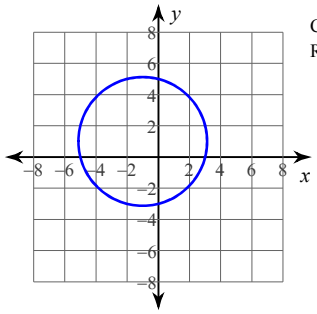
Center: $(-1, -1)$
Radius: 3

35)



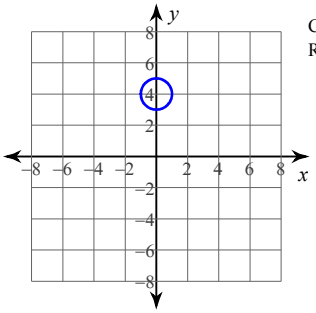
Center: $(0, 3)$
Radius: 4

36)



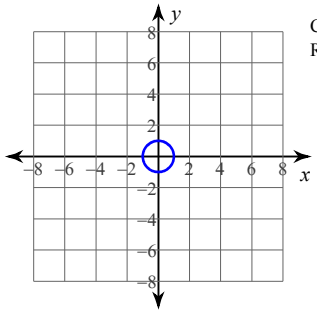
Center: $(-1, 1)$
Radius: $\sqrt{17}$

37)



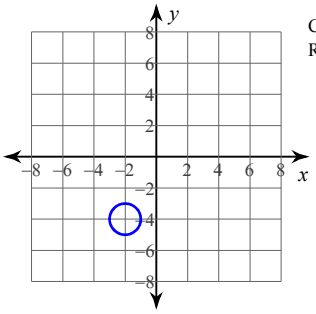
Center: $(0, 4)$
Radius: 1

38)



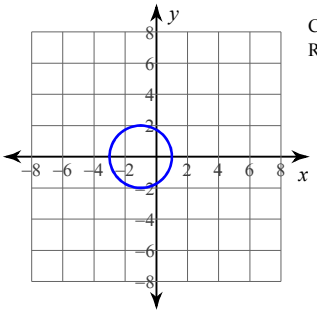
Center: $(0, 0)$
Radius: 1

39)



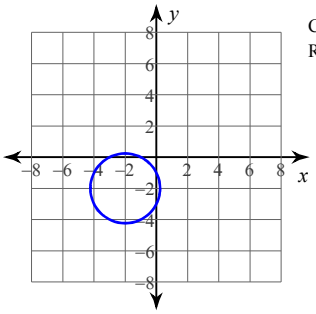
Center: $(-2, -4)$
Radius: 1

40)



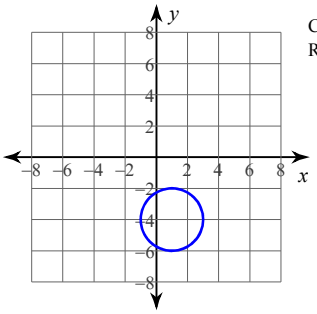
Center: $(-1, 0)$
Radius: 2

41)



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

42)



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