

1.  $(-4, -6), 7$   
 $(x+4)^2 + (y+6)^2 = 49$

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

9. center  $(-3, 4)$  radius: 3  
 $(x+3)^2 + (y-4)^2 = 3^2$   
 $(x+3)^2 + (y-4)^2 = 9$

11.  $(x+2)^2 + (y-10)^2 = 4$   
     $\uparrow$            $\uparrow$   
    2 left    10 up     $\sqrt{4} = 2$   
    c:  $(-2, 10)$     r: 2

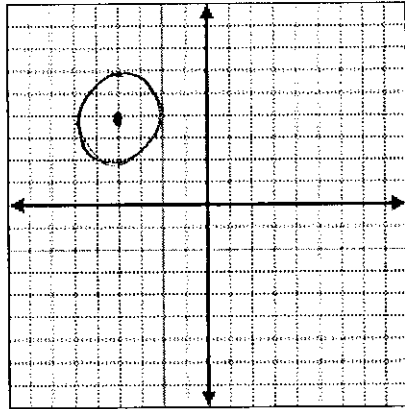
15.  $(x+4)^2 + (y-4)^2 = 4$   
     $\uparrow$            $\uparrow$   
    4 left    4 up     $\sqrt{4} = 2$   
    c  $(-4, 4)$     r = 2    See graph paper

19.  $x^2 - 12x + \underline{36} + y^2 - 16y + \underline{64} = -84 + \underline{36} + \underline{64}$   
     $\left(\frac{-12}{2}\right)^2$            $\left(\frac{-16}{2}\right)^2$   
     $(-6)^2$            $(-8)^2$   
    36                  64

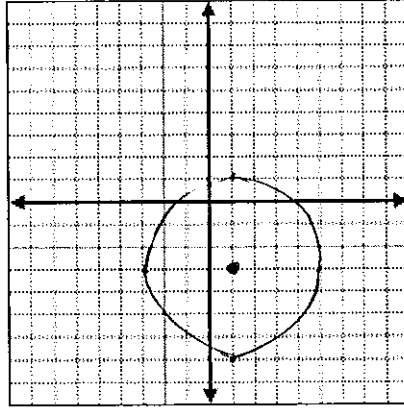
$$(x-6)^2 + (y-8)^2 = 16$$

c  $(6, 8)$     r = 4

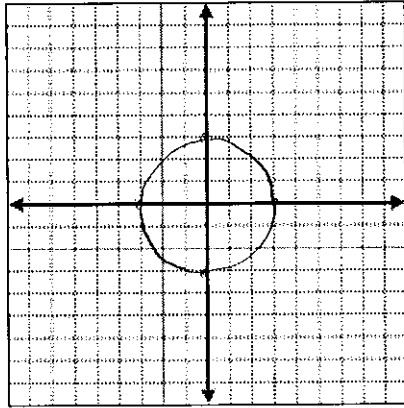
15.



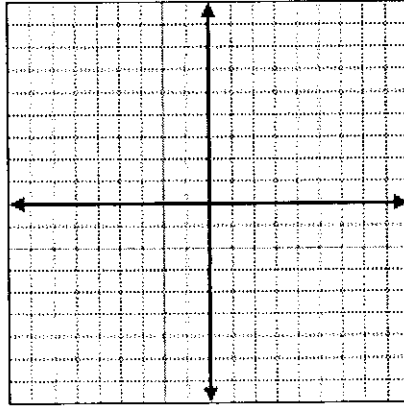
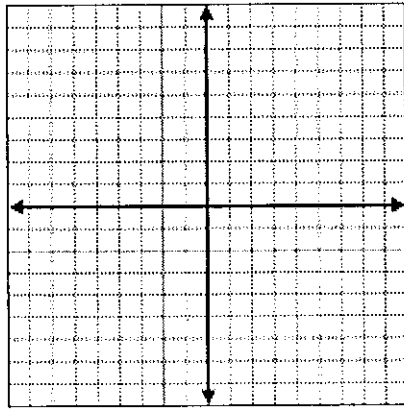
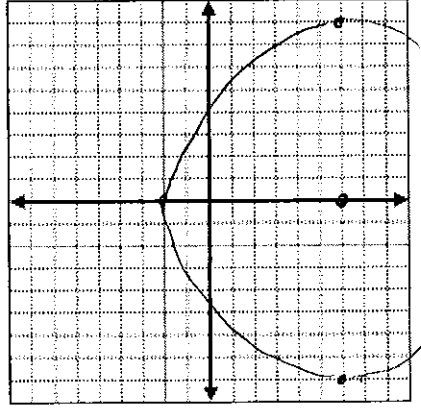
16.



17.



18.



## Algebra II 10-3 Worksheet Answers

1.  $(x + 4)^2 + (y + 6)^2 = 49$     2.  $(x - 2)^2 + (y - 3)^2 = 16$

3.  $(x + 6)^2 + (y - 10)^2 = 1$     4.  $(x + 3)^2 + y^2 = 64$

5.  $x^2 + (y + 1)^2 = 9$     6.  $(x - 2)^2 + (y + 4)^2 = 25$

7.  $(x + 5)^2 + y^2 = 100$     8.  $(x + 6)^2 + (y - 1)^2 = 20$

9.  $(x + 3)^2 + (y - 4)^2 = 9$     10.  $(\overset{x-2}{\cancel{x+6}})^2 + (\overset{y+6}{\cancel{y-1}})^2 = \overset{16}{\cancel{20}}$

11. C:  $(-2, 10)$ ,  $r = 2$     12. C:  $(3, -5)$ ,  $r = 9$

13. C:  $(-6, 0)$ ,  $r = 11$     14. C:  $(3, 7)$ ,  $r = 4\sqrt{6}$

15. C:  $(-4, 4)$ ,  $r = 2$     16. C:  $(1, -3)$ ,  $r = 4$

17. C:  $(0, 0)$ ,  $r = 3$     18. C:  $(6, 0)$ ,  $r = 8$

19.  $(x - 6)^2 + (y - 8)^2 = 16$ , C:  $(6, 8)$ ,  $r = 4$

20.  $(x + 4)^2 + (y - 3)^2 = 25$ , C:  $(-4, 3)$ ,  $r = 5$

21.  $(x + 7)^2 + (y + 3)^2 = 81$ , C:  $(-7, -3)$ ,  $r = 9$

22.  $(x + 1)^2 + y^2 = 4$ , C:  $(-1, 0)$ ,  $r = 2$

$$23. x^2 + (y - 3)^2 = 25, C: (0, 3), r = 5$$

$$24. (x - 9)^2 + (y - 9)^2 = 109, C: (9, 9), r = \sqrt{109}$$

$$25. (x - 2)^2 + y^2 = 13, C: (2, 0), r = \sqrt{13}$$

$$26. \left(x + \frac{9}{2}\right)^2 + (y - 4)^2 = \frac{129}{4}, C: \left(-\frac{9}{2}, 4\right), r = \frac{\sqrt{129}}{2}$$

$$27. (x + 7)^2 + (y + 3)^2 = 8, C: (-7, -3), r = 2\sqrt{2}$$

$$28. (x - 4)^2 + (y + 5)^2 = 42, C: (4, -5), r = \sqrt{42}$$