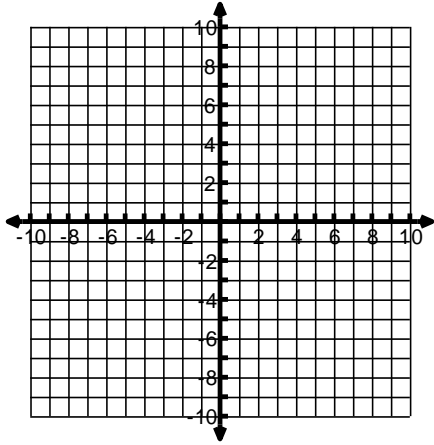
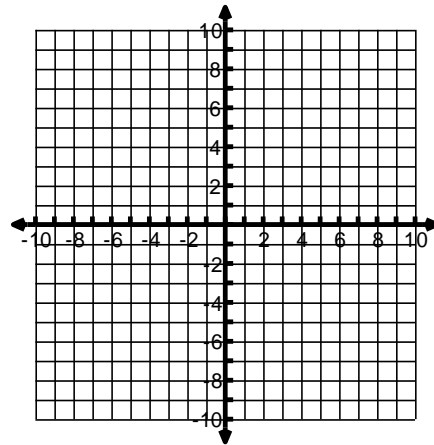


Identify the center and radius of each graph. Then sketch the graph.

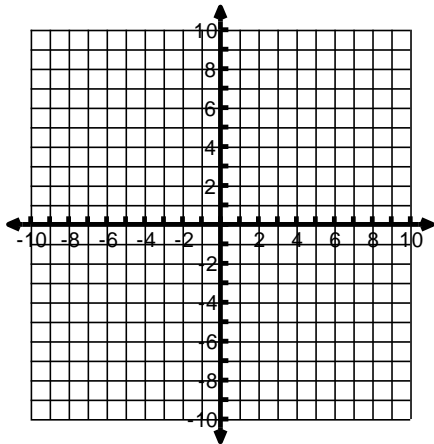
1.  $(x-1)^2 + (y+3)^2 = 4$  Center: (\_\_, \_\_)  
r = \_\_



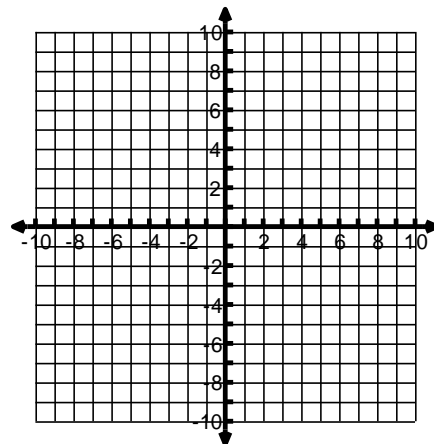
2.  $(x-2)^2 + (y+1)^2 = 16$  Center: (\_\_, \_\_)  
r = \_\_



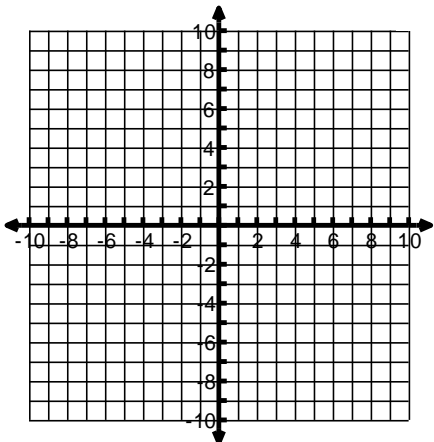
3.  $(x-1)^2 + (y+4)^2 = 9$  Center: (\_\_, \_\_)  
r = \_\_



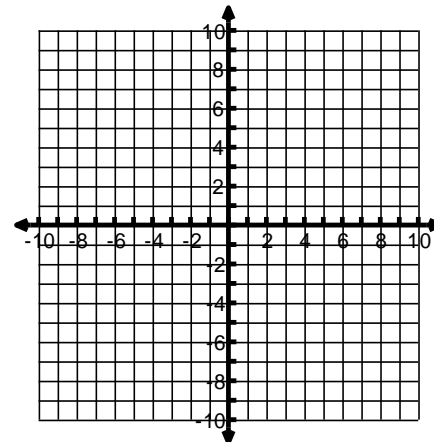
4.  $x^2 + (y-3)^2 = 14$  Center: (\_\_, \_\_)  
r = \_\_



5.  $(x+2)^2 + y^2 = 10$  Center: (\_\_, \_\_)  
r = \_\_



6.  $(x+4)^2 + (y-4)^2 = 1$  Center: (\_\_, \_\_)  
r = \_\_



**From the given information, write the equation of each circle in Standard Form**

7. Center (2, -1), radius = 4

8. Center (7, -1), radius =  $\sqrt{3}$

9. Center (3, -2), and (-1, 1) is a point on the circle

10. Center: (1,6) and Point on Circle: (-10, 11)

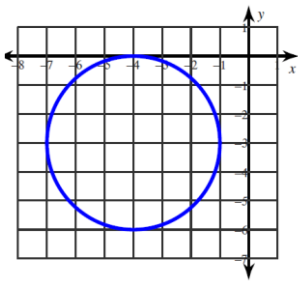
11. Ends of a diameter: (18, -3) and (4, -3)

12. Ends of a diameter: (-4, 12) and (-4, 18)

13. Center (2, 3) and diameter is 14.

14. Center (-6,-1) and diameter is 8.

15.



16.

