

Write Equations Homework #1

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

1) Center: (7, -13)  
Radius: 5

$$(x-7)^2 + (y+13)^2 = 25$$

2) Center: (-11, 10)  
Radius: 4

$$(x+11)^2 + (y-10)^2 = 16$$

3) Center: (12, -12)  
Radius: 4

$$(x-12)^2 + (y+12)^2 = 16$$

4) Center: (3, 1)  
Radius:  $\sqrt{6}$

$$(x-3)^2 + (y-1)^2 = 6$$

5) Center: (-6, 12)  
Radius: 6

$$(x+6)^2 + (y-12)^2 = 36$$

6) Center: (-16, -9)  
Radius: 1

$$(x+16)^2 + (y+9)^2 = 1$$

7) Center: (-1, 14)  
Radius: 4

$$(x+1)^2 + (y-14)^2 = 16$$

8) Center: (-10, -7)  
Radius: 4

$$(x+10)^2 + (y+7)^2 = 16$$

9) Center: (0, 0)  
Radius:  $\sqrt{5}$

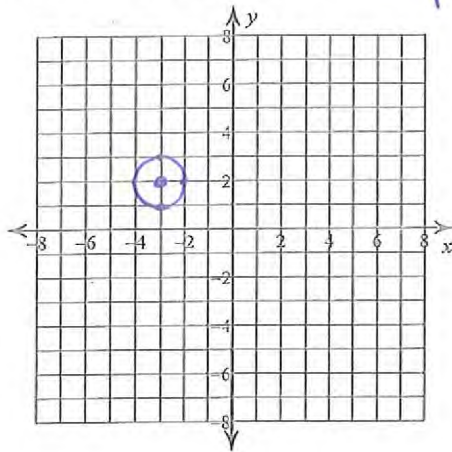
$$x^2 + y^2 = 5$$

10) Center: (0, 0)  
Radius: 11

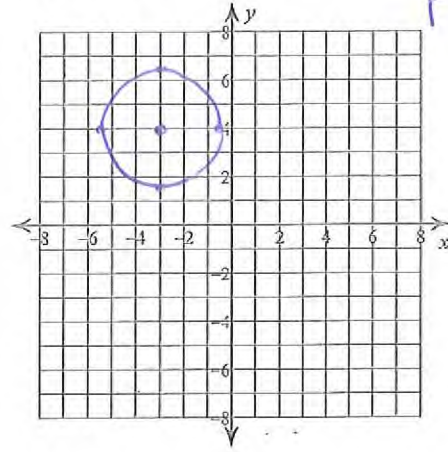
$$x^2 + y^2 = 121$$

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

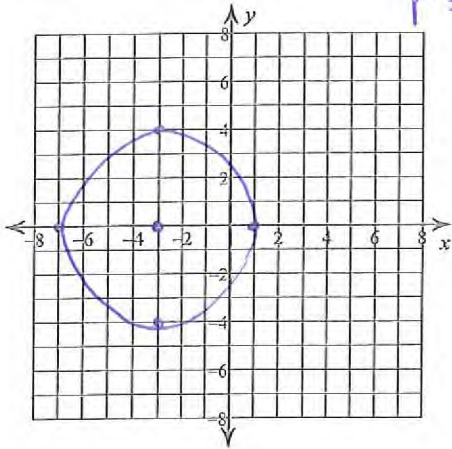
11)  $(x+3)^2 + (y-2)^2 = 1$        $C: (-3, 2)$   
 $r = 1$



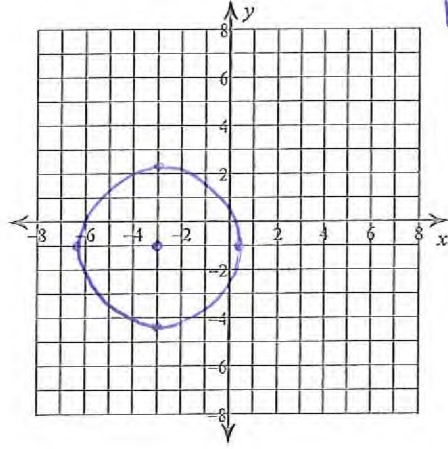
12)  $(x+3)^2 + (y-4)^2 = 6$        $C: (-3, 4)$   
 $r = \sqrt{6}$   
 $= 2.4$



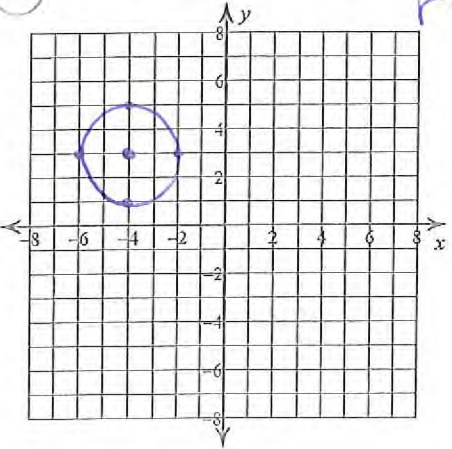
13)  $(x+3)^2 + y^2 = 16$        $C: (-3, 0)$   
 $r = 4$



14)  $(x+3)^2 + (y+1)^2 = 10$        $C: (-3, -1)$   
 $r = \sqrt{10}$   
 $= 3.2$



15)  $(x+4)^2 + (y-3)^2 = 4$        $C: (-4, 3)$   
 $r = 2$



16)  $(x+3)^2 + (y+4)^2 = 9$        $C: (-3, -4)$   
 $r = 3$

