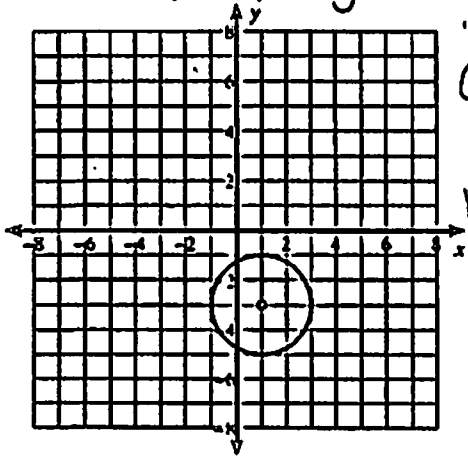


8.3 Graphing Circles HW

Key

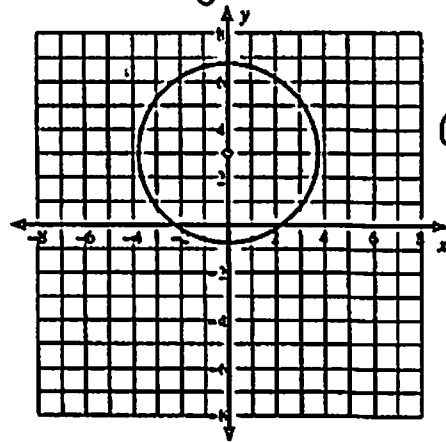
Directions: Find the equation of the circle.

1) Equation: $(x-1)^2 + (y+3)^2 = 4$



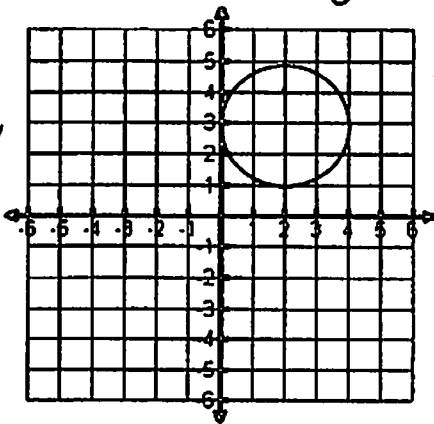
center:
(1, -3)
radius:
2

2) Equation: $x^2 + (y-3)^2 = \frac{225}{16}$



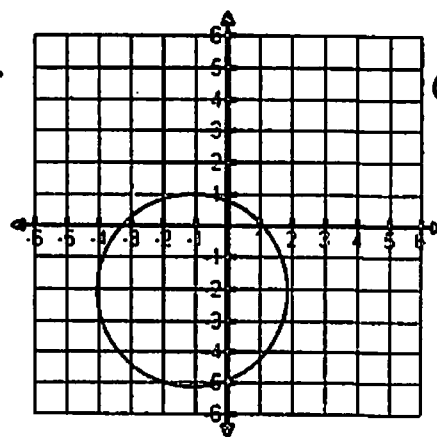
center:
(0, 3)
radius:
 $3.75 = \frac{15}{4}$

3) Equation: $(x-2)^2 + (y-3)^2 = 4$



center:
(2, 3)
radius:
2

4) Equation: $(x+1)^2 + (y+2)^2 = 9$



center:
(-1, -2)
radius:
3

Directions: Write the equation given the following information.

5) Center (3, 5) and a radius of 8

$$(x-3)^2 + (y-5)^2 = 64$$

6) Center (1, -2) and a diameter of 22

$r = 11$
 $(x-1)^2 + (y+2)^2 = 121$

7) Center (-6, 0) and a diameter of $\sqrt{8}$

$r = \frac{\sqrt{8}}{2}$
 $(x+6)^2 + y^2 = 2$

8) Center (3, -3) and a radius of 7

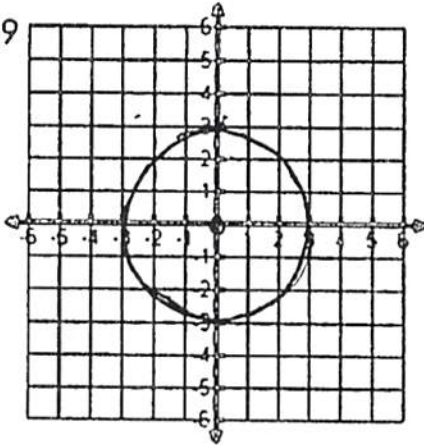
$$(x-3)^2 + (y+3)^2 = 49$$

Directions: Graph the following circles. State the radius and center.

9) $x^2 + y^2 = 9$

Center: (0,0)

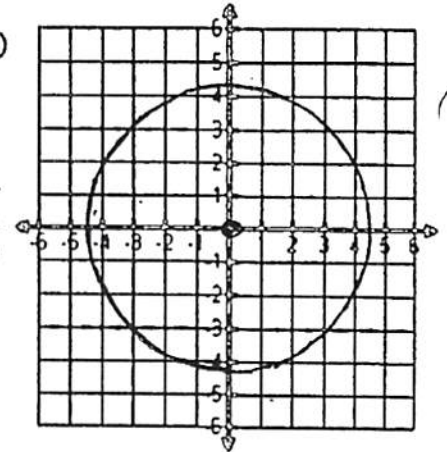
Radius: 3



10) $x^2 + y^2 = 20$

Center: (0,0)

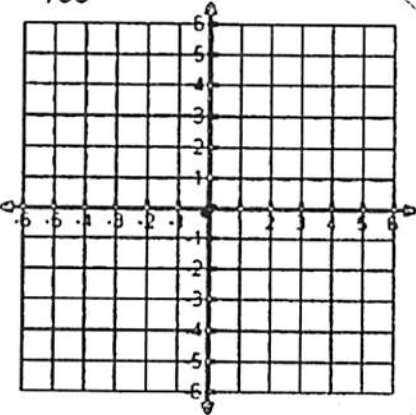
Radius: $\sqrt{20} \approx 4.5$



11) $4x^2 + 4y^2 = 100$

Center: (0,0)

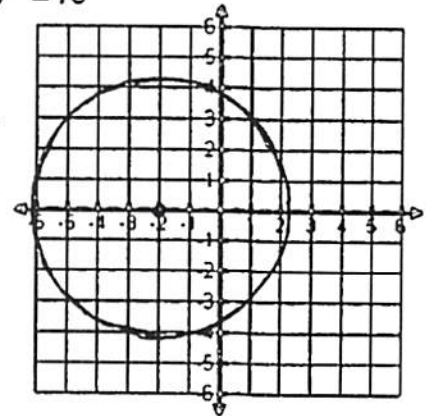
Radius: ~~10~~ 5



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

Center: (-2,0)

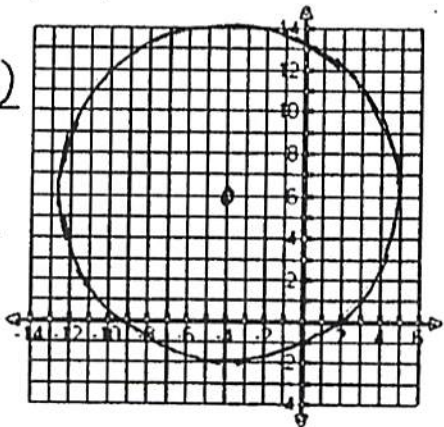
Radius: 4



13) $(x+4)^2 + (y-6)^2 = 64$

Center: (-4,6)

Radius: 8



14) $(x-3)^2 + (y-5)^2 = 50$

Center: (3,5)

Radius: $\sqrt{50} \approx 7$

