

Graphing and Properties of Circles

Identify the center and radius of each.

1) $x^2 + y^2 = 49$

2) $x^2 + y^2 = 324$

3) $(x + 2)^2 + (y - 3)^2 = 183$

4) $(x + 7)^2 + (y + 8)^2 = 64$

5) $(x + 10)^2 + (y + 9)^2 = 36$

6) $(x + 5)^2 + (y - 10)^2 = 9$

7) $x^2 + (y + 2)^2 = 121$

8) $(x - 14)^2 + (y - 2)^2 = 4$

9) $364 + 28y + y^2 + x^2 = -26x$

10) $x^2 + y^2 + 24x + 10y + 160 = 0$

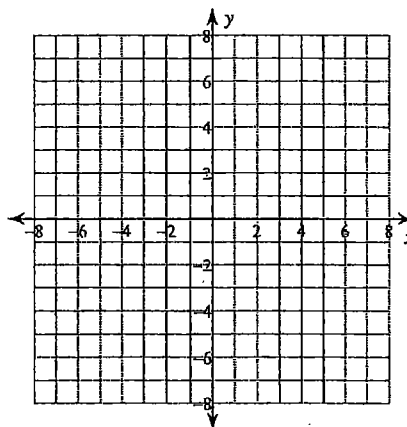
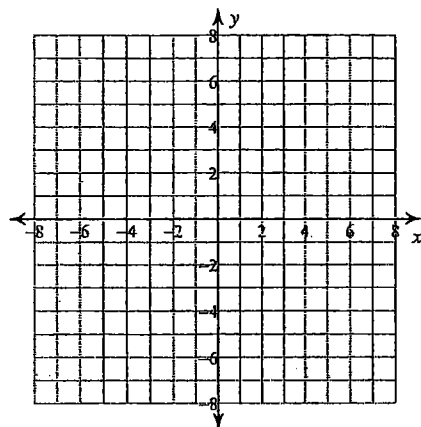
11) $-6x = -x^2 + 32y - 264 - y^2$

12) $-6x + x^2 = 97 + 10y - y^2$

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

13) $(x + 1)^2 + (y - 2)^2 = 9$

14) $(x + 2)^2 + (y + 3)^2 = 4$



Writing Equations of Circles

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

1) $8x + x^2 - 2y = 64 - y^2$

2) $137 + 6y = -y^2 - x^2 - 24x$

3) $x^2 + y^2 + 14x - 12y + 4 = 0$

4) $y^2 + 2x + x^2 = 24y - 120$

5) $x^2 + 2x + y^2 = 55 + 10y$

6) $8x + 32y + y^2 = -263 - x^2$

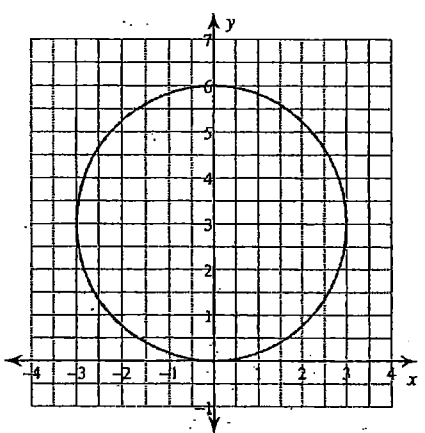
7) Center: $(-11, -8)$
Radius: 4

8) Center: $(-6, -15)$
Radius: $\sqrt{5}$

9) $(x - 16)^2 + (y - 6)^2 = 1$
Translated 4 left, 2 up

10) $(x + 5)^2 + (y + 7)^2 = 36$
Translated 5 left, 4 down

11)



12)

