

Practice

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

1) Center: $(-16, -3)$
Circumference: 4π

2) Center: $(-8, -2)$
Circumference: 14π

3) Center: $(11, -13)$
Circumference: 4π

4) Ends of a diameter: $(13, -7)$ and $(7, -11)$

5) Ends of a diameter: $(-18, -5)$ and $(-8, 3)$

6) Ends of a diameter: $(6, 0)$ and $(12, 8)$

7) Center: $(2, -12)$
Area: 9π

8) Center: $(12, 0)$
Area: 36π

9) Center: $(2, -16)$
Area: π

10) Center: $(-14, 8)$
Point on Circle: $(-15, 4)$

11) Center: $(-3, -3)$
Point on Circle: $(7, -14)$

12) Center: $(2, -4)$
Tangent to $y = -1$

13) Center: $(-6, -7)$
Tangent to $y = -9$

14) Center: $(-10, -14)$
Tangent to $x = -8$

Answers to Practice

1) $(x + 16)^2 + (y + 3)^2 = 4$

4) $(x - 10)^2 + (y + 9)^2 = 13$

7) $(x - 2)^2 + (y + 12)^2 = 9$

10) $(x + 14)^2 + (y - 8)^2 = 17$

13) $(x + 6)^2 + (y + 7)^2 = 4$

2) $(x + 8)^2 + (y + 2)^2 = 49$

5) $(x + 13)^2 + (y + 1)^2 = 41$

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

11) $(x + 3)^2 + (y + 3)^2 = 221$

14) $(x + 10)^2 + (y + 14)^2 = 4$

3) $(x - 11)^2 + (y + 13)^2 = 4$

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

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

12) $(x - 2)^2 + (y + 4)^2 = 9$