

Writing & Graphing Circles

1. Determine the center and the radius of the circle

a. $x^2 + y^2 = 49$

b. $(x + 8)^2 + (y + 10)^2 = 36$

c. $144 - x^2 = y^2$

2. Write the equation of the circle using the information given.

a. Center (4, 5)

Radius = 5

b. Center (0, 0)

Diameter = 12

c. Center (-1, 5)

Area = 36π

d. Center (0, 0)

Point (-8, 0)

e. Center (2, 4)

Point (6, 10)

f. Center (4, 3)

Circumference = 18π

3. Write the equation of a circle in standard form by completing the square.

a. $x^2 + y^2 + 14x - 12y + 4 = 0$

b. $x^2 + 2x + y^2 = 55 + 10y$

c. $8x + 32y + y^2 = -263 - x^2$

d. $137 + 6y = -y^2 - x^2 - 24x$