

Homework

p.635: 3, 4, 11, 14, 15

- 3 Find the center, the radius, the diameter, the circumference, and the area of the circle represented by each equation.

a $x^2 + y^2 = 36$

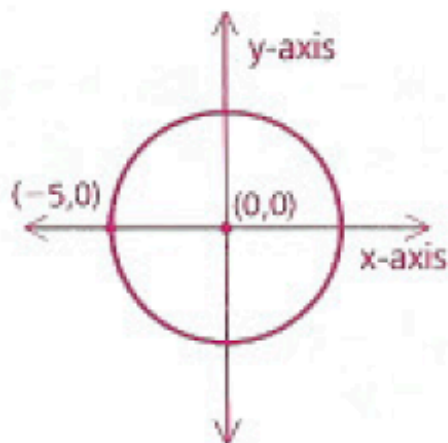
c $(x - 3)^2 + (y + 6)^2 = 100$

b $(x + 5)^2 + y^2 = \frac{9}{4}$

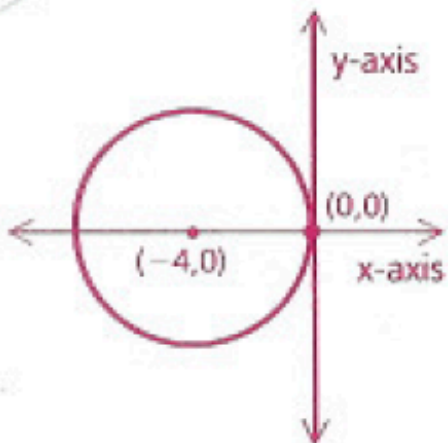
d $\frac{(x + 5)^2}{3} + \frac{(y - 2)^2}{3} = 27$

- 4 Write an equation of each circle. (Hint: Find the value of r and use the circle formula.)

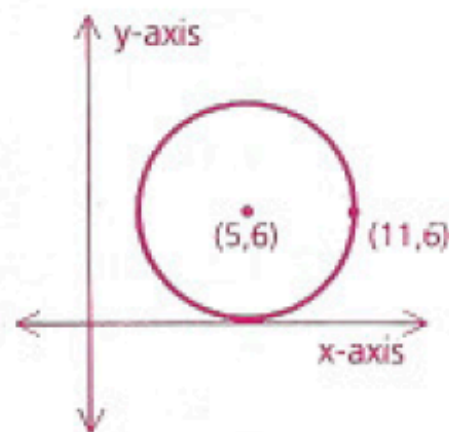
a



b



c



- 11 Find the center and the radius of the circle represented by each equation.

a $x^2 + y^2 - 8y = 9$

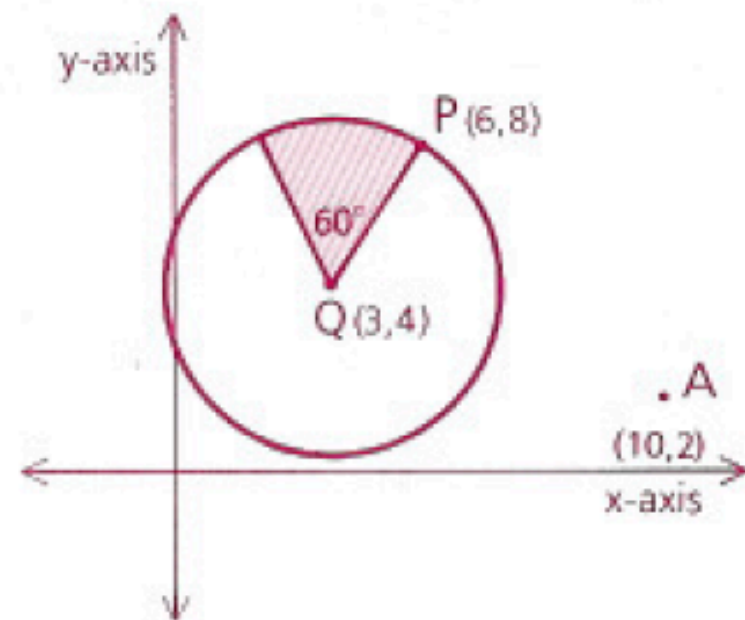
c $x^2 + 10x + y^2 - 12y = -10$

b $(x + 7)^2 + y^2 + 6y = 27$

d $x^2 + y^2 = 8x - 14y + 35$

14 Use the diagram of circle Q as marked to find

- a** An equation of the tangent to the circle at $(6, 8)$
- b** The circumference of the circle
- c** The distance from A to Q
- d** The distance from A to the circle (to the nearest tenth)
- e** The area of the shaded sector (to the nearest tenth)



- 15** Consider the circle represented by $(x - 2)^2 + (y + 3)^2 = 61$. Write, in point-slope form, the equation of the tangent to the circle at point $(8, -8)$.