

NAME: \_\_\_\_\_

*P.I. G.G.73: Find the center and radius of a circle, given the equation of the circle in center-radius form*

1. Find the center and radius of the circle.

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

[A] (6, 6); 5                      [B] (-6, 6); 5                      [C] (6, -6); 5                      [D] (6, -6); 25

2. Find the center and radius of the circle.

$$(x-4)^2 + (y-9)^2 = 64$$

[A] (-4, -9); 8                      [B] (9, 4); 64                      [C] (4, 9); 8                      [D] (9, -4); 8

3. Find the center and radius of the circle.

$$(x-3)^2 + (y+5)^2 = 9$$

[A] (3, -5); 3                      [B] (-3, 5); 3                      [C] (-5, 3); 9                      [D] (-5, -3); 3

4. Find the center and radius of the circle.

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

[A] (6, 4); 8                      [B] (-4, 6); 8                      [C] (-6, -4); 8                      [D] (-4, -6); 64

5. Which is the center of the circle  $(x+2)^2 + (y-1)^2 = 9$ ?

[A] (2, 1)                      [B] (-2, -1)                      [C] (-2, 1)                      [D] (2, -1)

6. The plans of a landscape artist include a circular fountain in a public park. The outline of the fountain can be modeled by  $(x-4)^2 + (y-5)^2 = 60$  where the units are meters and the graph is on a grid map of the park. Find the map location in coordinates of the center. Then find the circumference of the fountain.

7. Here are four equations for four concentric circles:

$$x^2 + y^2 = 4; \quad x^2 + y^2 = 16; \quad x^2 + y^2 = 36; \quad x^2 + y^2 = 64.$$

Find the mean of the radii of these circles.

8. Compare the quantity in Column A with the quantity in Column B

Column A

Column B

the radius of  $x^2 + y^2 = 100$       the radius of  $(x+3)^2 + (y-2)^2 = 100$

[A] The quantity in Column A is greater.                      [B] The quantity in Column B is greater.

[C] The two quantities are equal.

[D] The relationship cannot be determined on the basis of the information supplied.

[1] B

[2] C

[3] A

[4] C

[5] C

[6] (4, 5); 48.67 m to the nearest hundredth

[7] 5

[8] C