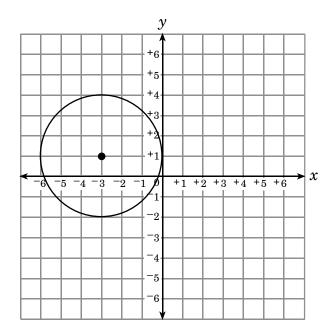
1. Which of the following is an equation for the circle shown?



$$A \qquad x^2 + y^2 + 6x - 2y + 1 = 0$$

$$B \qquad x^2 + y^2 - 6x - 2y + 1 = 0$$

$$C \qquad x^2 + y^2 + 6x + 2y + 7 = 0$$

$$D \qquad x^2 + y^2 - 6x - 2y + 7 = 0$$

2. Which is an equation for the parabola that has vertex (-2,3) and passes through the point (-1,5)?

$$A \qquad y = x^2 + 4x + 7$$

$$B \qquad y = x^2 - 4x + 7$$

$$C \qquad y = 2x^2 - 8x + 11$$

$$D \qquad y = 2x^2 + 8x + 11$$

3. Which curve opens to the left?

$$A \qquad y^2 = 8x + 24$$

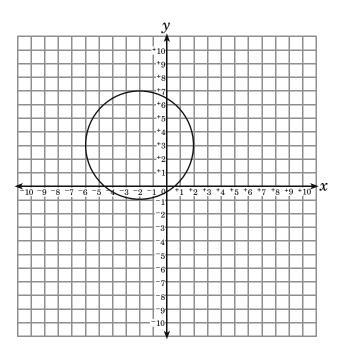
$$B \qquad y = \frac{x^2}{8} - 3$$

C
$$y^2 = -8x - 24$$

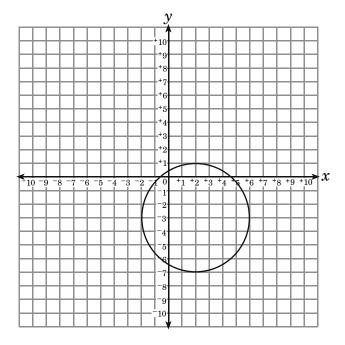
$$D \qquad y = -\frac{x^2}{8} + 3$$

4. Which is the graph of a circle with equation $x^2 + 4x + y^2 - 6y = 3$?

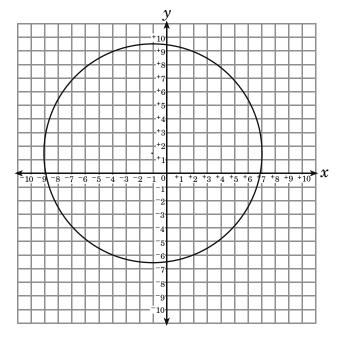
A



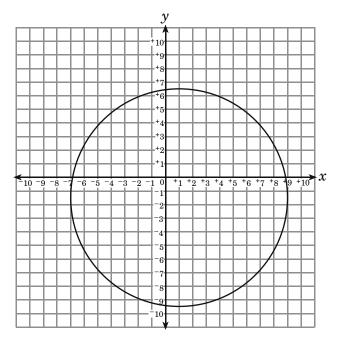
В



 \mathbf{C}



D



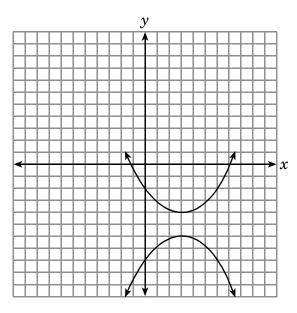
5. Which of the following points is in the interior of the graph of the relation

$$\frac{x^2}{9} + \frac{y^2}{25} = 1?$$

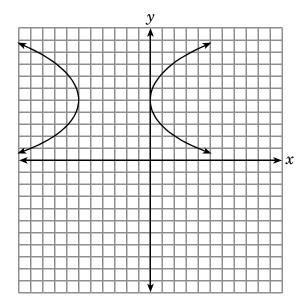
- A (3,5)
- $B \qquad (2,4)$
- $C \quad (0, -5)$
- D $\left(-2, -3\right)$
- 6. Which of the following are the *x*-intercepts for $\frac{x^2}{16} \frac{y^2}{9} = 1$?
 - A {-3, 3}
 - B {-4, 4}
 - $C = \{-5, 5\}$
 - D {-8, 8}

7. Which is the correct graph of $x^2 - y^2 + 6x + 10y - 17 = 0$?

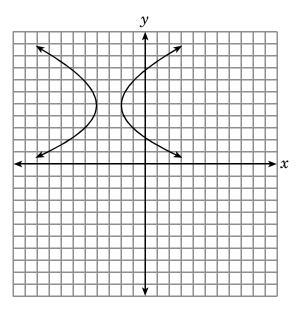
A



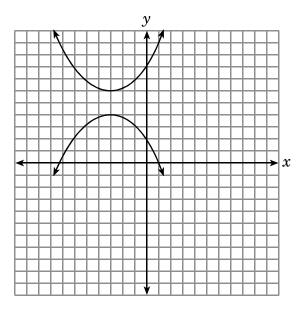
В



 \mathbf{C}



D



8. Which of the following is a point on the graph

of
$$\frac{(x-1)^2}{25} + \frac{(y+1)^2}{9} = 1$$
?

- A (-4, -1)
- B $\left(-4,1\right)$
- C (4,1)
- D (4, -1)

End of Goal 2 Sample Items

1. Objective 2.01

Write the equations in standard form of circles and parabolas; graph.

Thinking Skill: Applying Correct Answer: A

2. Objective 2.01

Write the equations in standard form of circles and parabolas; graph.

Thinking Skill: Applying Correct Answer: D

3. Objective 2.01

Write the equations in standard form of circles and parabolas; graph.

Thinking Skill: Analyzing Correct Answer: C

4. Objective 2.01

Write the equations in standard form of circles and parabolas; graph.

Thinking Skill: Applying Correct Answer: A

5. Objective 2.02

Graph ellipses and hyperbolas given the equations.

Thinking Skill: Analyzing Correct Answer: D

6. Objective 2.02

Graph ellipses and hyperbolas given the equations.

Thinking Skill: Analyzing Correct Answer: B

7. Objective 2.02

Graph ellipses and hyperbolas given the equations.

Thinking Skill: Applying Correct Answer: C

8. Objective 2.02

Graph ellipses and hyperbolas given the equations.

Thinking Skill: Analyzing Correct Answer: A