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


A $\quad x^{2}+y^{2}+6 x-2 y+1=0$
B $\quad x^{2}+y^{2}-6 x-2 y+1=0$
C $\quad x^{2}+y^{2}+6 x+2 y+7=0$
D $\quad x^{2}+y^{2}-6 x-2 y+7=0$
2. Which is an equation for the parabola that has vertex $(-2,3)$ and passes through the point $(-1,5)$ ?

A $y=x^{2}+4 x+7$

B $y=x^{2}-4 x+7$
C $y=2 x^{2}-8 x+11$
D $y=2 x^{2}+8 x+11$
3. Which curve opens to the left?

A $y^{2}=8 x+24$
B $y=\frac{x^{2}}{8}-3$
C $y^{2}=-8 x-24$
D $y=\frac{-x^{2}}{8}+3$
4. Which is the graph of a circle with equation $x^{2}+4 x+y^{2}-6 y=3$ ?
A

B

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

A $\quad\{-3,3\}$
B $\{-4,4\}$
C $\quad\{-5,5\}$
D $\quad\{-8,8\}$
7. Which is the correct graph of $x^{2}-y^{2}+6 x+10 y-17=0$ ?


C


B


D

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

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

A $\left(-4,{ }^{-1}\right)$
B $(-4,1)$
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

