Section 9.6 p. 655 #1, 3-12

1. **VOCABULARY** *Explain* why circles, ellipses, parabolas, and hyperbolas are called conic sections.

GRAPHING **Graph the equation. Identify the important characteristics of the graph.**

3. $(x + 4)^2 = -8(y - 2)$

4. $(x - 2)^2 + (y - 7)^2 = 9$

5. $\frac{(x - 6)^2}{25} - (y + 1)^2 = 1$

6. $\frac{(y + 4)^2}{49} - \frac{(x + 8)^2}{9} = 1$

7. $\frac{(x + 2)^2}{16} + \frac{(y - 2)^2}{36} = 1$

8. $(x - 5)^2 + (y + 1)^2 = 64$

9. $(y - 1)^2 = 4(x + 6)$

10. $\frac{x^2}{25} + \frac{(y - 2)^2}{4} = 1$

11. $\frac{(x + 3)^2}{9} - \frac{(y - 4)^2}{16} = 1$

12. ★ **MULTIPLE CHOICE** What are the coordinates of the co-vertices of the ellipse with equation $\frac{(x - 4)^2}{16} + \frac{(y - 1)^2}{4} = 1$?

Ⓐ (0, 1), (8, 1) Ⓑ (−8, 1), (0, 1) Ⓒ (4, 3), (4, −1) Ⓓ (−4, 3), (−4, −1)