Pg 811-812

1–8 ■ Find the vertex, focus, and directrix of the parabola, and sketch the graph.

1. $y^2 = 4x$

2. $x = \frac{1}{12}y^2$

3. $x^2 + 8y = 0$

4. $2x - y^2 = 0$

9–16 ■ Find the center, vertices, foci, and the lengths of the major and minor axes of the ellipse, and sketch the graph.

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

10. $\frac{x^2}{49} + \frac{y^2}{9} = 1$

11. $x^2 + 4y^2 = 16$

12. $9x^2 + 4y^2 = 1$

43–50 ■ Find an equation for the conic section with the given properties.

43. The parabola with focus $F(0, 1)$ and directrix $y = -1$

44. The ellipse with center $C(0, 4)$, foci $F_1(0, 0)$ and $F_2(0, 8)$, and major axis of length 10