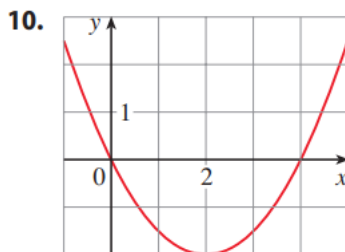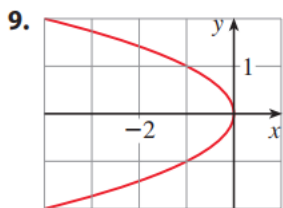1. Find the vertex, focus, and directrix of the parabola and sketch its graph.

   (a) $5x + 3y^2 = 0$

   (b) $(y + 1)^2 = 16(x - 3)$

   (c) $2x^2 - 16x - 3y + 38 = 0$

2. To each of the following graph, find an equation of the parabola. Then find the focus and directrix.
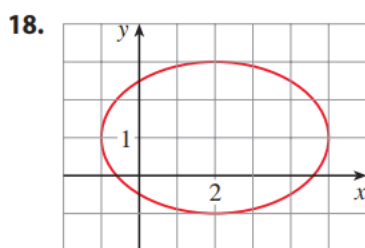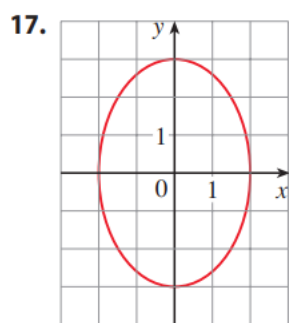
9.

10.

3. Find the vertices and foci of the ellipse and sketch its graph.

   (a) $x^2 = 4 - 2y^2$

   (b) $4x^2 + 25y^2 - 50y = 75$

4. To each of the following graph, find an equation of the ellipse. Then find the foci.

17.

18.

5. Find the vertices, foci, and asymptotes of the hyperbola and sketch its graph.

   (a) $y^2 - 16x^2 = 16$

   (b) $x^2 - y^2 + 2y = 2$