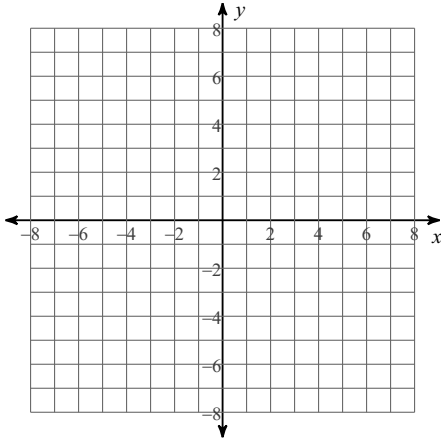


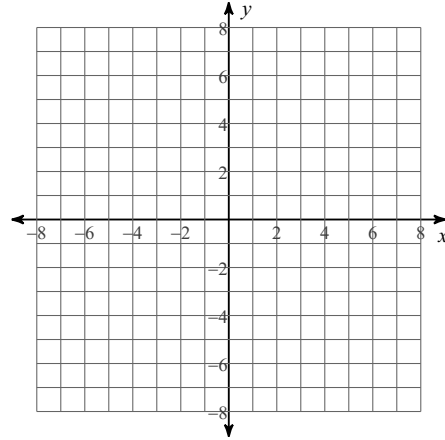
Review Ellipse and Hyperbola

Identify the center, vertices, co-vertices, foci, length of the major axis, and length of the minor axis of each. Then sketch the graph.

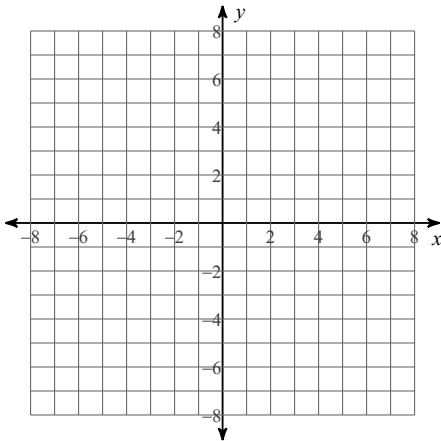
1) $(x - 4)^2 + \frac{(y - 3)^2}{4} = 1$



2) $16x^2 + 25y^2 + 64x - 336 = 0$



3) $4x^2 + y^2 - 24x + 20 = 0$



Use the information provided to write the standard form equation of each ellipse.

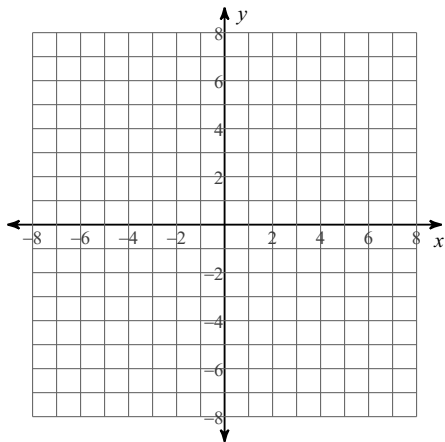
4) Vertices: $(13, 4), (-13, 4)$
 Foci: $(12, 4), (-12, 4)$

5) Vertices: $(6, 15), (6, 5)$
 Foci: $(6, 14), (6, 6)$

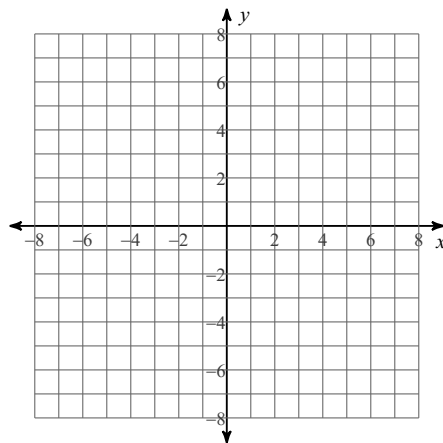
- 6) Center: $(8, 8)$
 Vertex: $(21, 8)$
 Focus: $(20, 8)$

Identify the vertices, foci, asymptotes, and direction of opening of each. Then sketch the graph.

7) $\frac{x^2}{25} - \frac{y^2}{20} = 1$



8) $-9x^2 + 16y^2 + 18x - 64y - 89 = 0$



Use the information provided to write the standard form equation of each hyperbola.

- 9) Vertices: $(6, -9 + 5\sqrt{6}), (6, -9 - 5\sqrt{6})$
 Foci: $(6, -9 + 8\sqrt{5}), (6, -9 - 8\sqrt{5})$

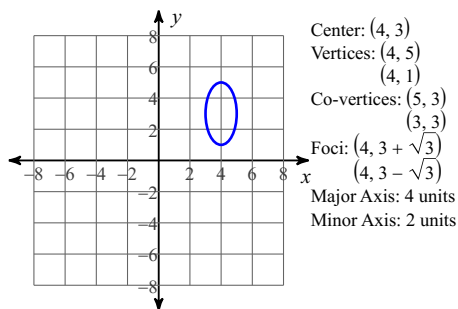
- 10) Vertices: $(8, 4), (6, 4)$
 Perimeter of Central Rectangle = 36

- 11) Vertices: $(3, -7), (-21, -7)$
 Asymptotes: $y = \frac{1}{6}x - \frac{11}{2}$
 $y = -\frac{1}{6}x - \frac{17}{2}$

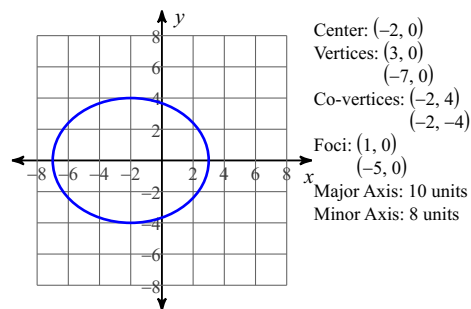
- 12) Foci: $(3 + \sqrt{37}, 3), (3 - \sqrt{37}, 3)$
 Asymptotes: $y = 6x - 15$
 $y = -6x + 21$

Answers to Review Ellipse and Hyperbola (ID: 1)

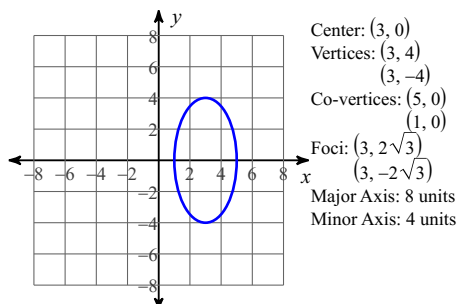
1)



2)



3)

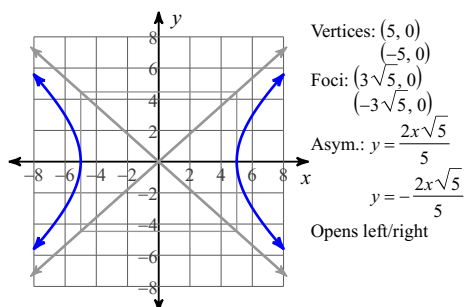


$$4) \frac{x^2}{169} + \frac{(y-4)^2}{25} = 1$$

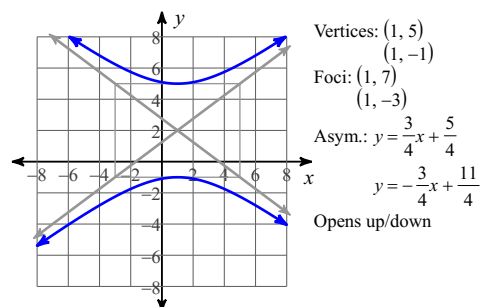
$$5) \frac{(x-6)^2}{9} + \frac{(y-10)^2}{25} = 1$$

$$6) \frac{(x-8)^2}{169} + \frac{(y-8)^2}{25} = 1$$

7)



8)



$$9) \frac{(y+9)^2}{150} - \frac{(x-6)^2}{170} = 1$$

$$10) (x-7)^2 - \frac{(y-4)^2}{64} = 1$$

$$11) \frac{(x+9)^2}{144} - \frac{(y+7)^2}{4} = 1$$

$$12) (x-3)^2 - \frac{(y-3)^2}{36} = 1$$