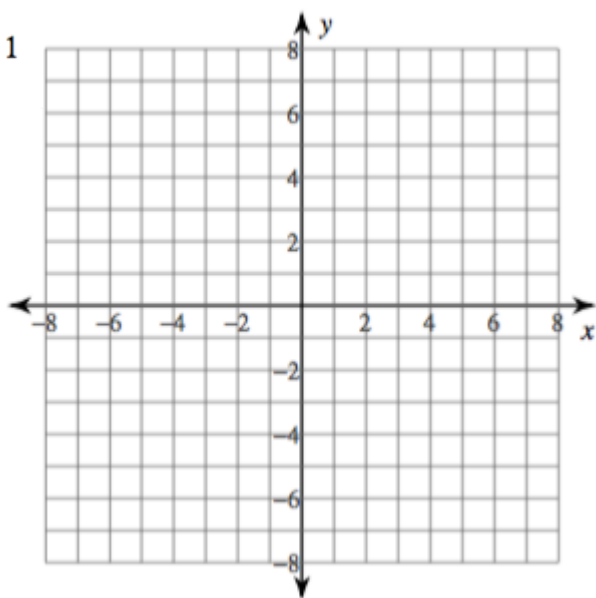


PC 8-2 Practice Problems

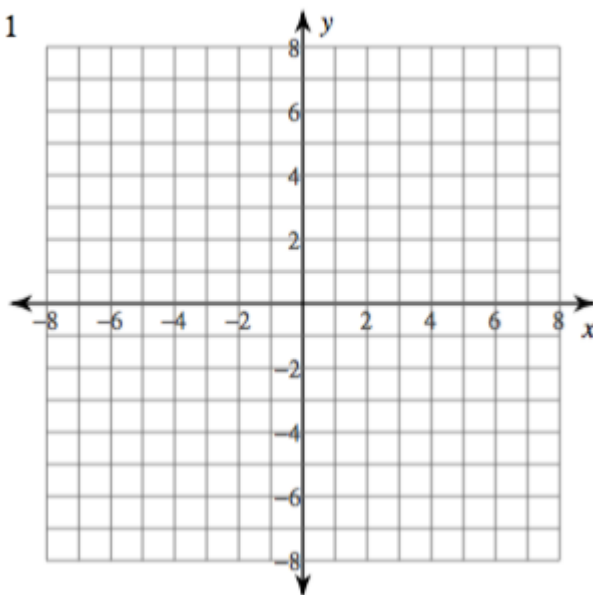
Graph and identify the foci. No Calculator.

$$\frac{x^2}{49} + \frac{y^2}{25} = 1$$



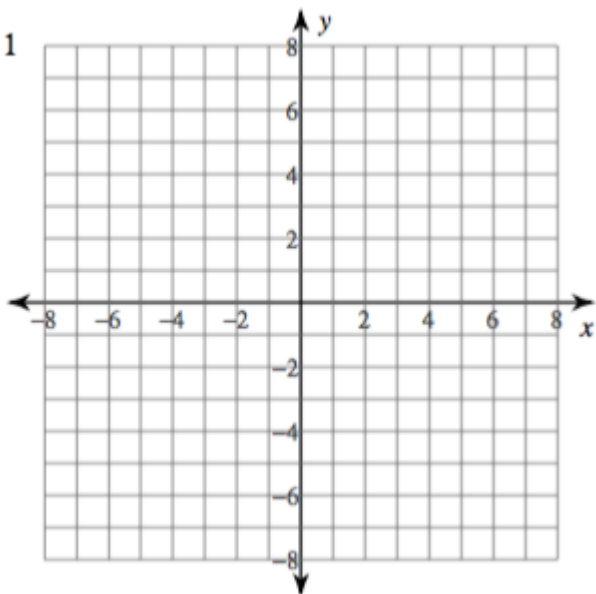
Graph and identify the foci. No Calculator.

$$\frac{x^2}{9} + \frac{y^2}{16} = 1$$



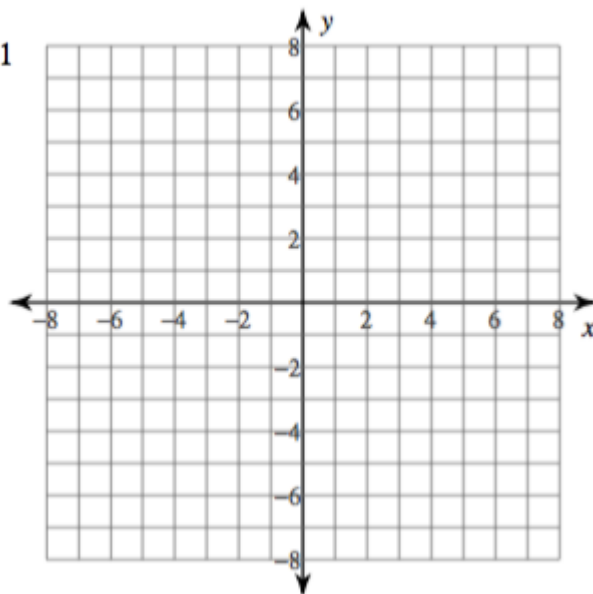
Graph and identify the foci. No Calculator.

$$\frac{x^2}{36} + \frac{y^2}{25} = 1$$



Graph and identify the foci. No Calculator.

$$x^2 + \frac{y^2}{36} = 1$$



Using the information, write the equation of the ellipse. Verify your results with a graphing utility.

Foci: $(4, 0)$, $(-4, 0)$

Endpoints of major axis: $(5, 0)$, $(-5, 0)$

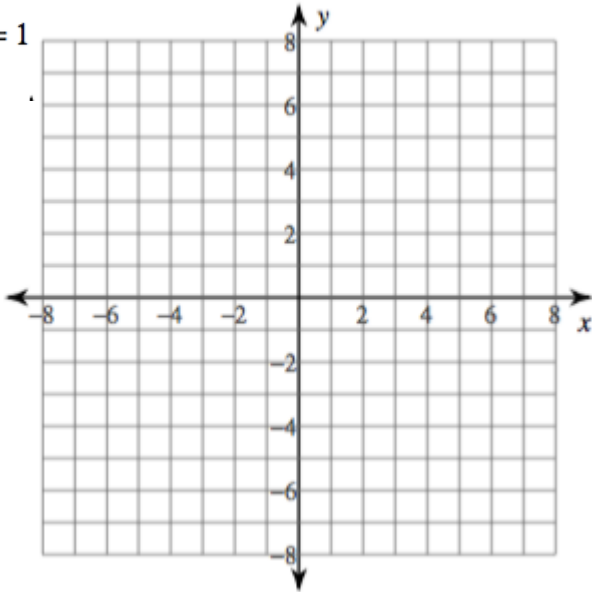
Using the information, write the equation of the ellipse. Verify your results with a graphing utility.

Foci: $(0, 12)$, $(0, -12)$

Endpoints of minor axis: $(5, 0)$, $(-5, 0)$

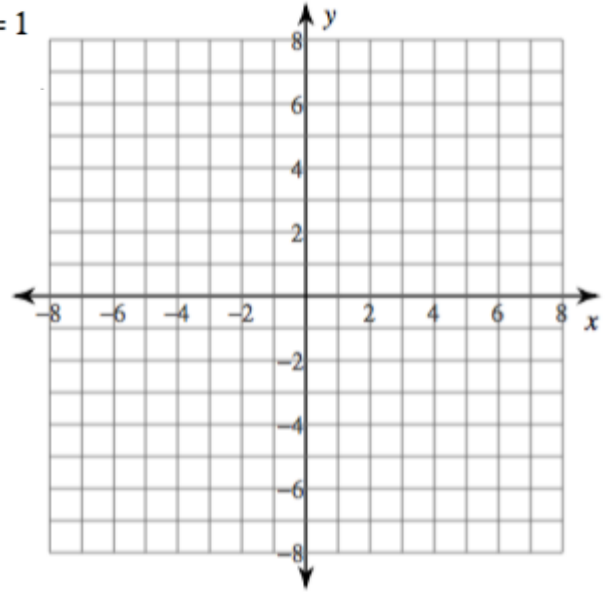
Graph and identify the vertices, foci, and asymptotes of each parabola. No Calculator.

$$\frac{y^2}{16} - \frac{x^2}{4} = 1$$



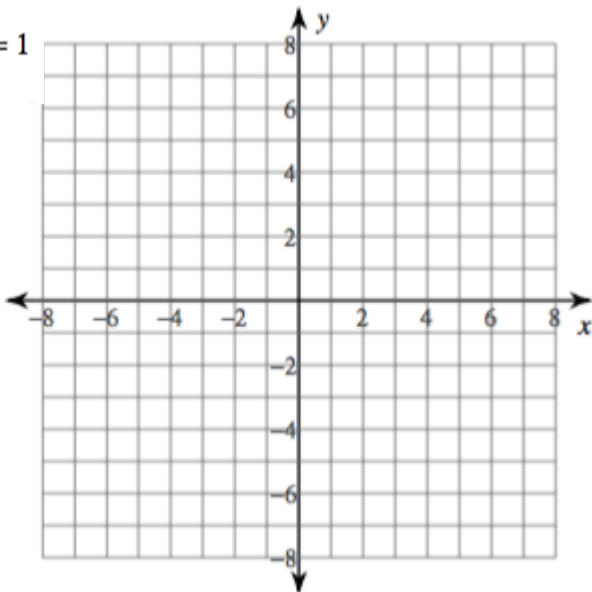
Graph and identify the vertices, foci, and asymptotes of each parabola. No Calculator.

$$x^2 - \frac{y^2}{16} = 1$$



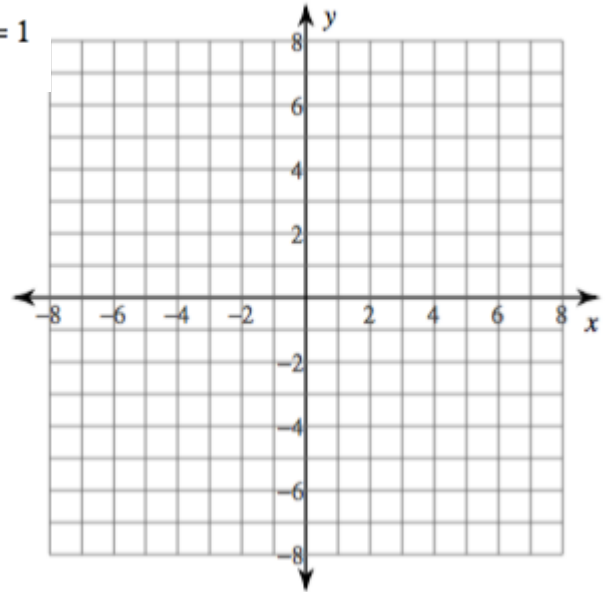
Graph and identify the vertices, foci, and asymptotes of each parabola. No Calculator.

$$\frac{x^2}{4} - \frac{y^2}{25} = 1$$



Graph and identify the vertices, foci, and asymptotes of each parabola. No Calculator.

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



Use the information provided to write the equation of the hyperbola. Verify with a graphing utility.

Vertices: $(0, 5), (0, -5)$

Foci: $(0, \sqrt{74}), (0, -\sqrt{74})$

Use the information provided to write the equation of the hyperbola. Verify with a graphing utility.

Vertices: $(7, 0), (-7, 0)$

Foci: $(\sqrt{53}, 0), (-\sqrt{53}, 0)$

