WebAssign
Hw 35 (10.5): Conic Sections (Homework)

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MA 162 Spring 2012, section 321, Spring 2012
Instructor: Jonathan Montano

Current Score : 20 / 20 **Due :** Tuesday, April 24 2012 11:55 PM EDT

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1. 3.33/3.33 points | Previous Answers SCalcET7 10.5.004.

Find the vertex, focus, and directrix of the parabola.

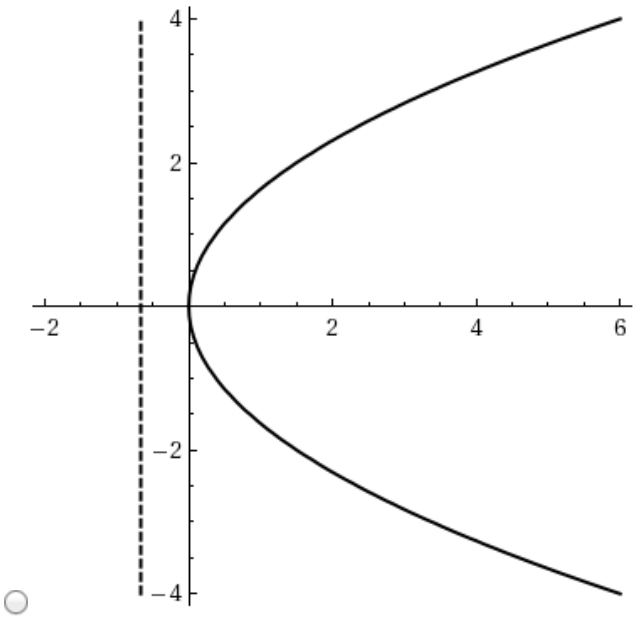
$3x^2 + 8y = 0$

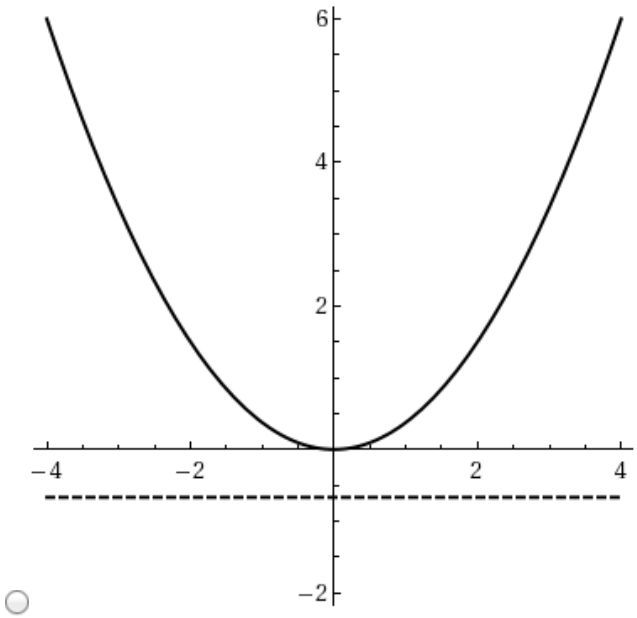
vertex $(x, y) =$ (✓)

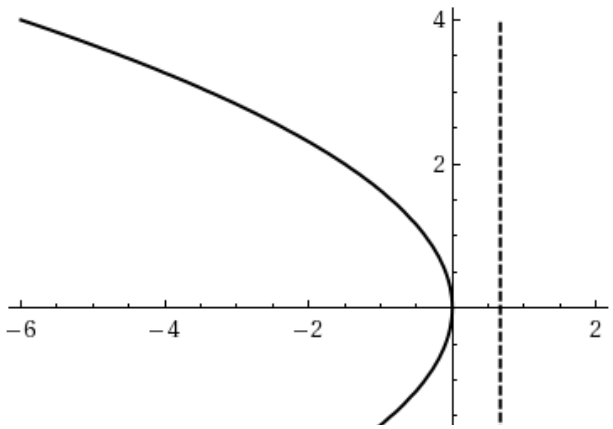
focus $(x, y) =$ (✓)

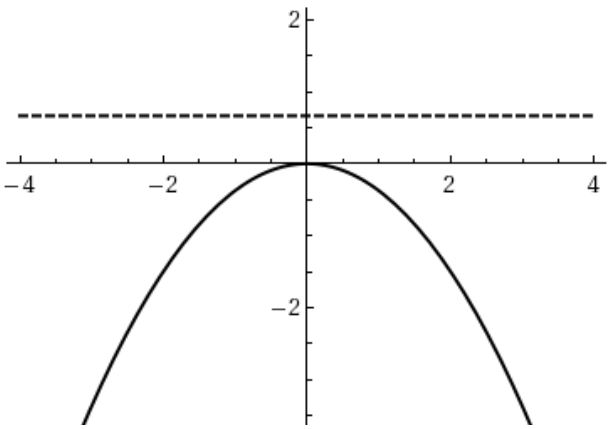
directrix ✓

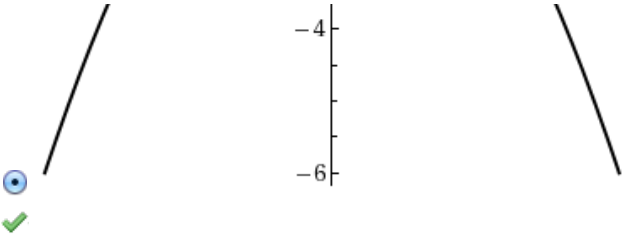
Sketch its graph.











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2. 3.33/3.33 points | Previous Answers SCalcET7 10.5.011.

Find the vertices and foci of the ellipse.

$$\frac{x^2}{16} + \frac{y^2}{12} = 1$$

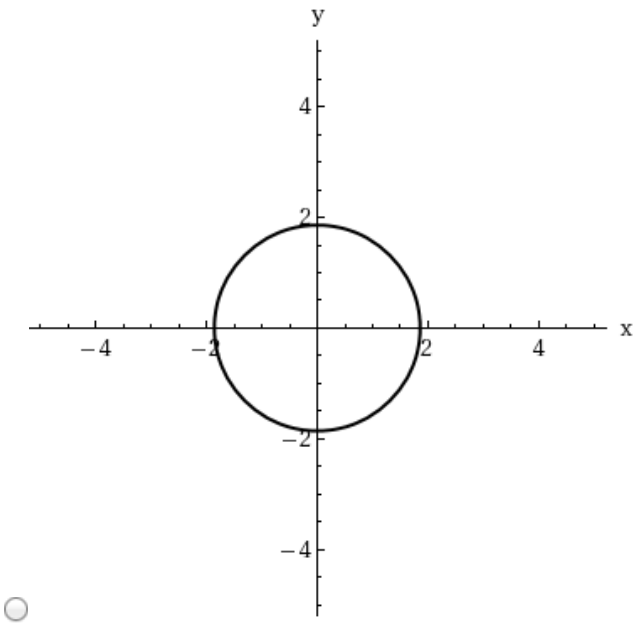
vertices $(x, y) =$ ( ) (smaller x-value)

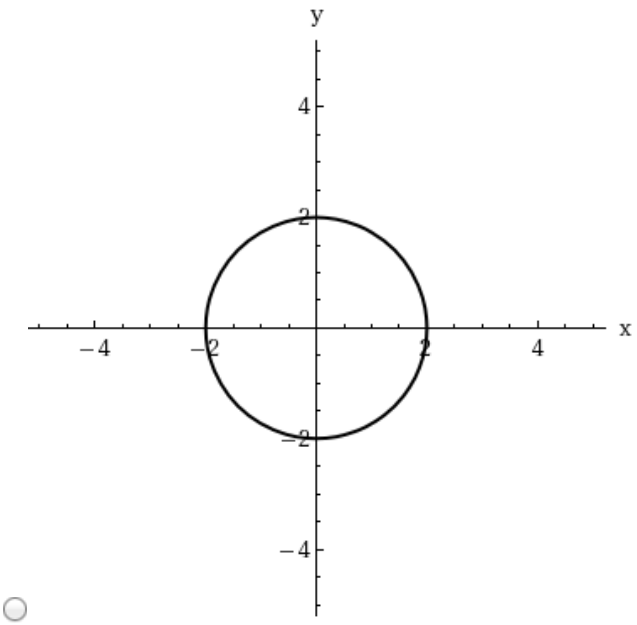
$(x, y) =$ ( ) (larger x-value)

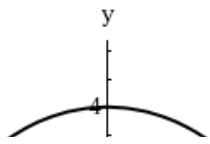
foci $(x, y) =$ ( ) (smaller x-value)

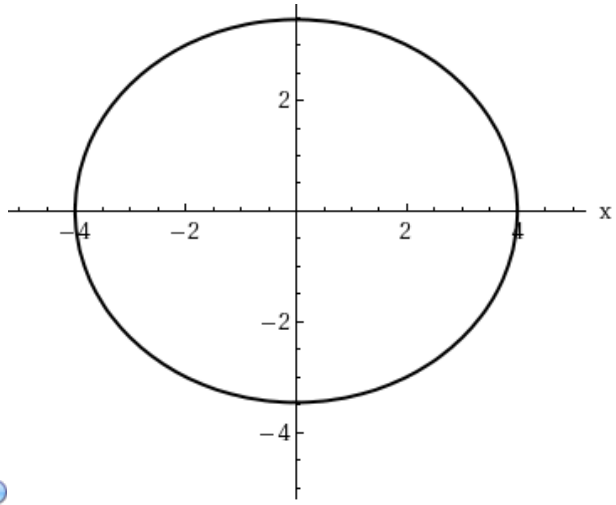
$(x, y) =$ ( ) (larger x-value)

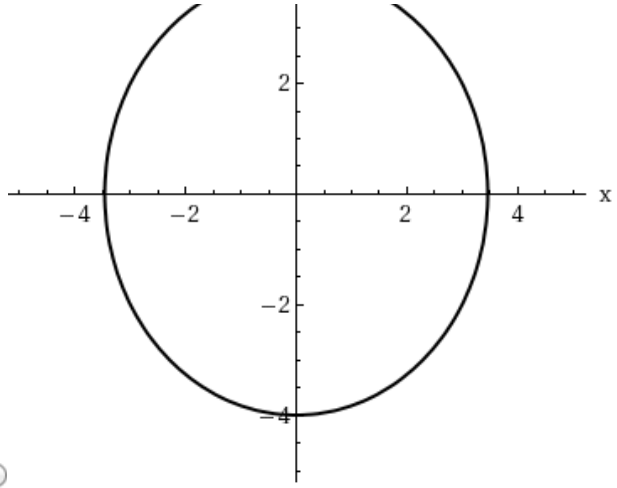
Sketch its graph.











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3. 3.33/3.33 points | Previous Answers SCalcET7 10.5.016.

Find the vertices and foci of the ellipse.

$$x^2 + 3y^2 + 6x - 12y + 18 = 0$$

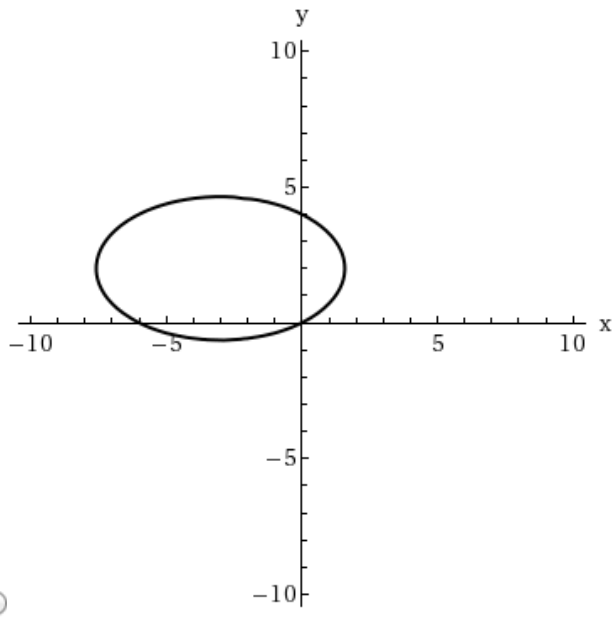
vertices $(x, y) =$ (✓) (smaller x-value)

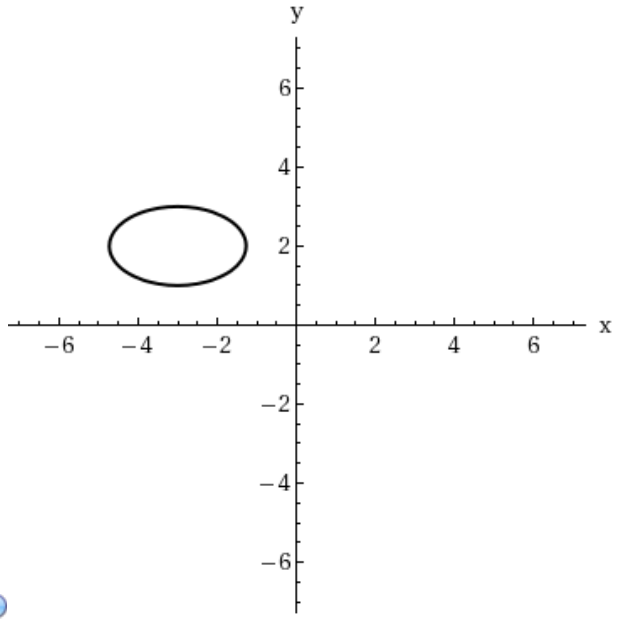
$(x, y) =$ (✓) (larger x-value)

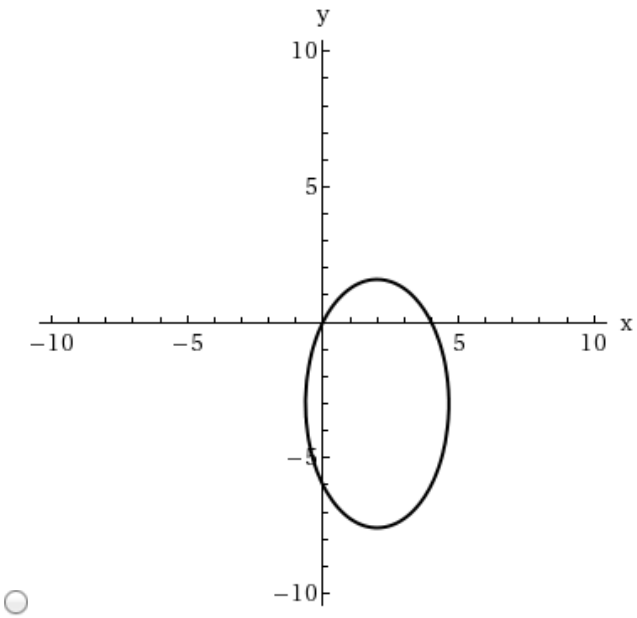
foci $(x, y) =$ (✓) (smaller x-value)

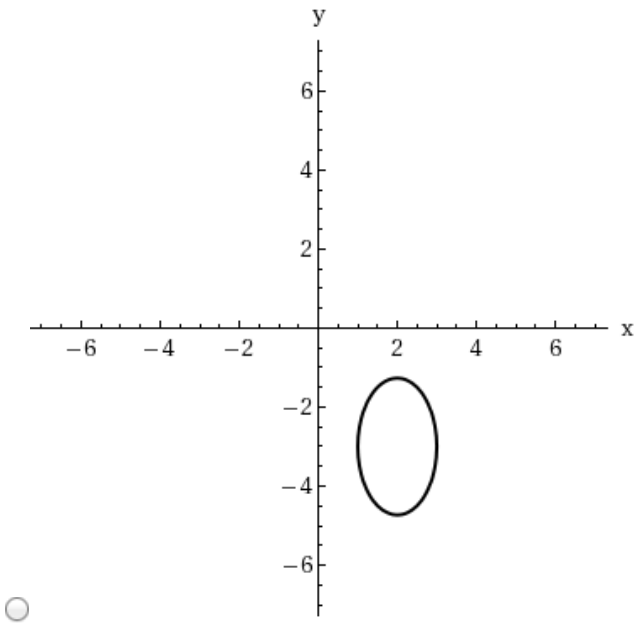
$(x, y) =$ (✓) (larger x-value)

Sketch its graph.









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4. 3.33/3.33 points | Previous Answers SCalcET7 10.5.021.

Find the vertices and foci of the hyperbola.

$y^2 - x^2 = 16$

vertices $(x, y) =$ ( ) (smaller y-value)

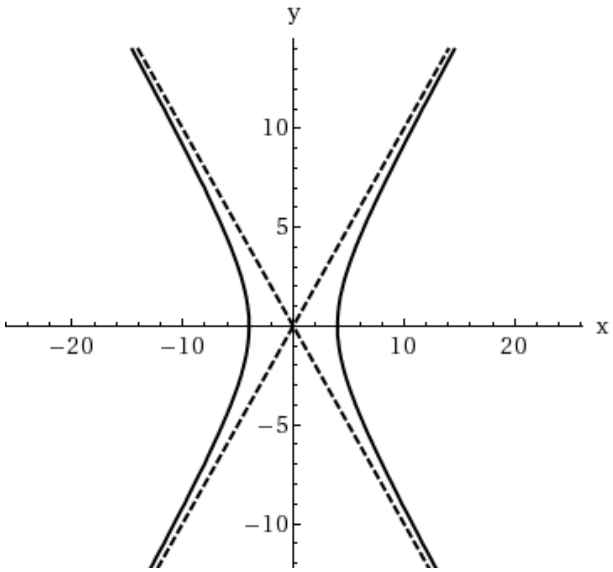
$(x, y) =$ ( ) (larger y-value)

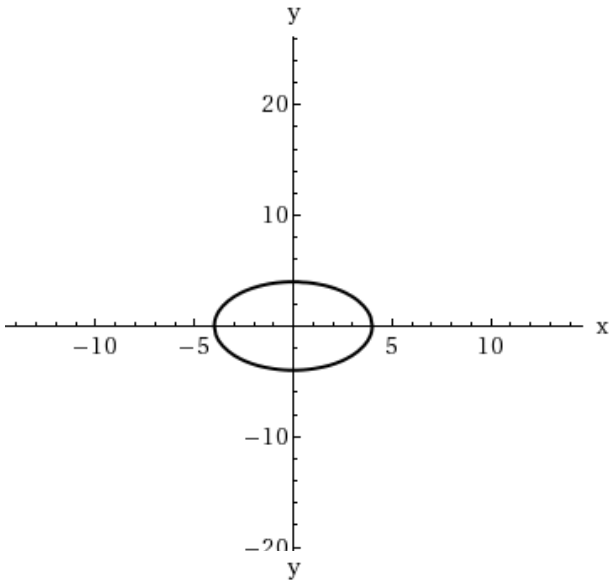
foci $(x, y) =$ ( ) (smaller y-value)

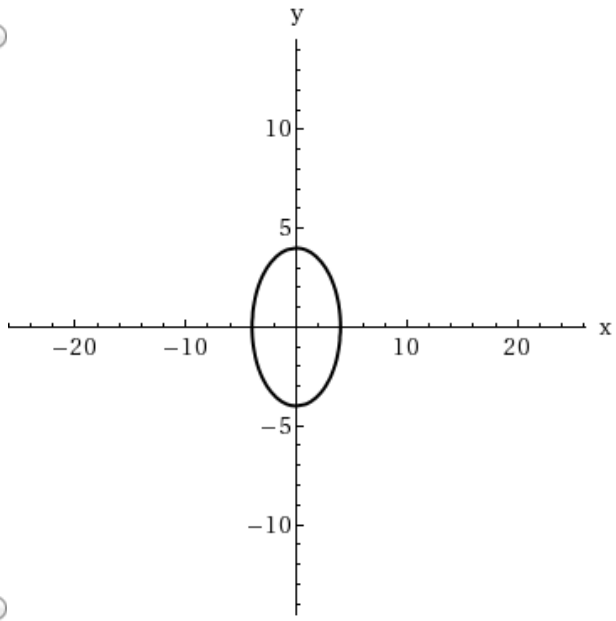
$(x, y) =$ ( ) (larger y-value)

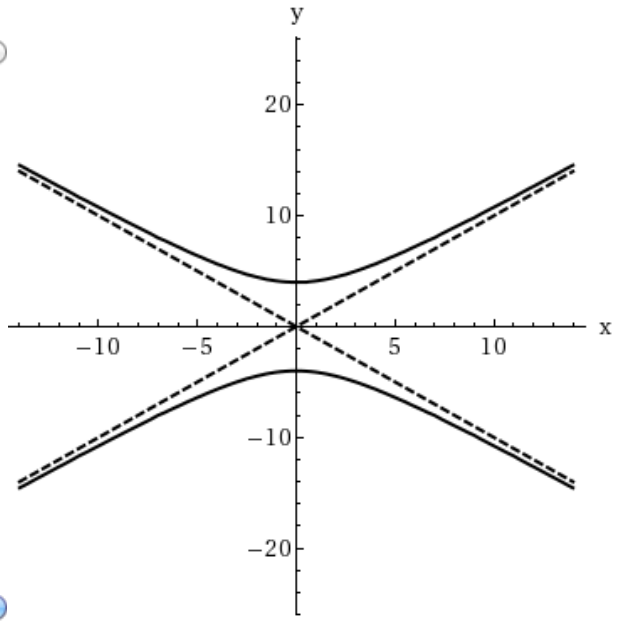
Find the asymptotes of the hyperbola. (Enter your answers as a comma-separated list of equations.)

Sketch its graph.









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5. 3.33/3.33 points | Previous Answers SCalcET7 10.5.022.

Find the vertices and foci of the hyperbola.

$16x^2 - 9y^2 = 144$

vertices $(x, y) =$ ( ) (smaller x-value)

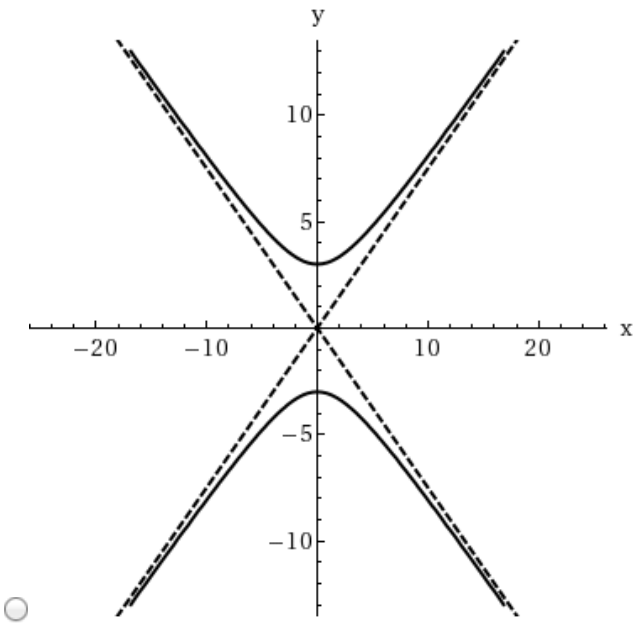
$(x, y) =$ ( ) (larger x-value)

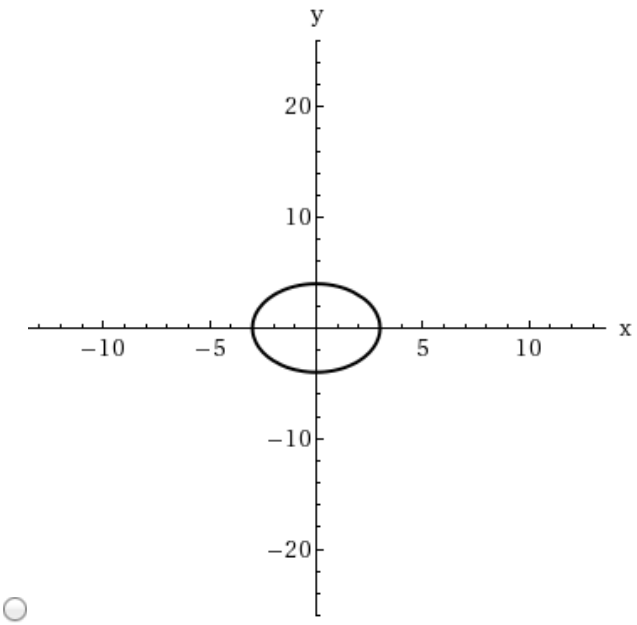
foci $(x, y) =$ ( ) (smaller x-value)

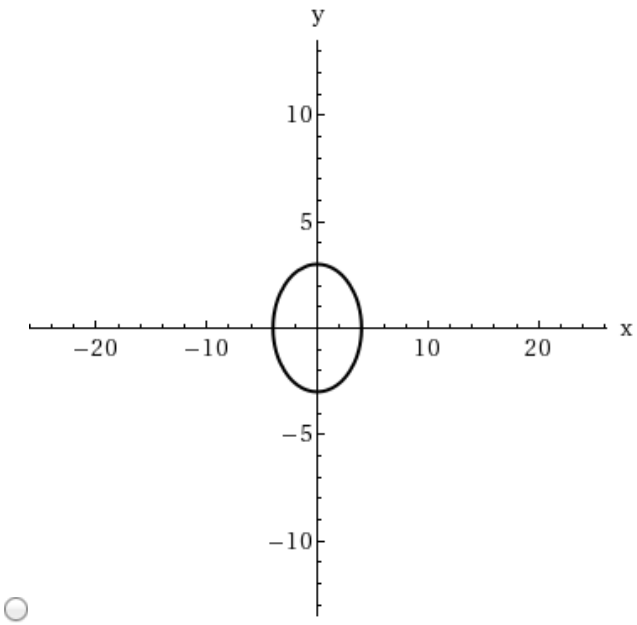
$(x, y) =$ ( ) (larger x-value)

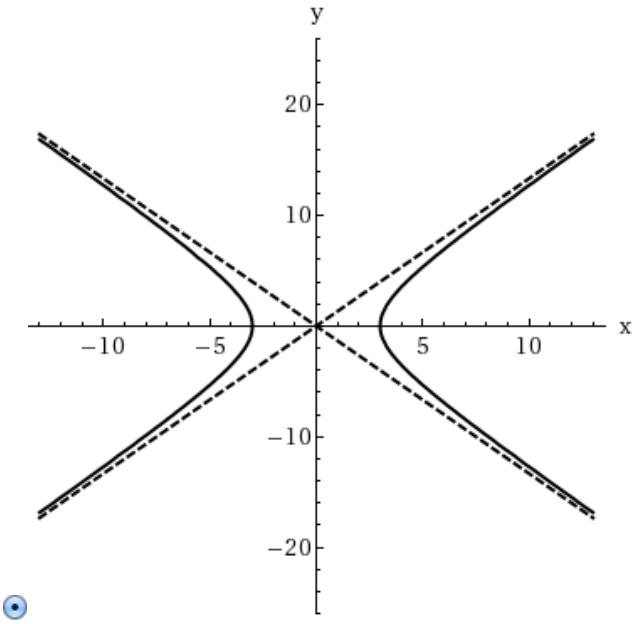
Find the asymptotes of the hyperbola. (Enter your answers as a comma-separated list of equations.)

Sketch its graph.









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6. 3.35/3.35 points | Previous Answers SCalcET7 10.5.023.

Find the vertices and foci of the hyperbola.

$16x^2 - y^2 - 96x - 2y + 127 = 0$

vertices $(x, y) =$ (✔) (smaller x-value)

$(x, y) =$ (✔) (larger x-value)

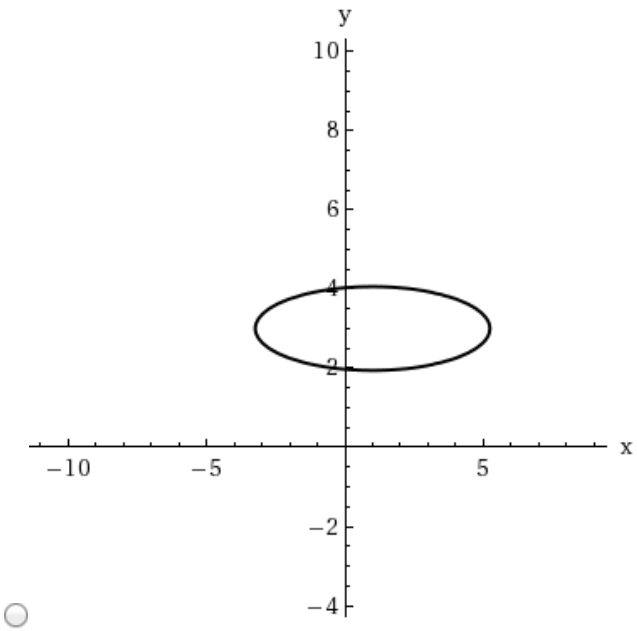
foci $(x, y) =$ (✔) (smaller x-value)

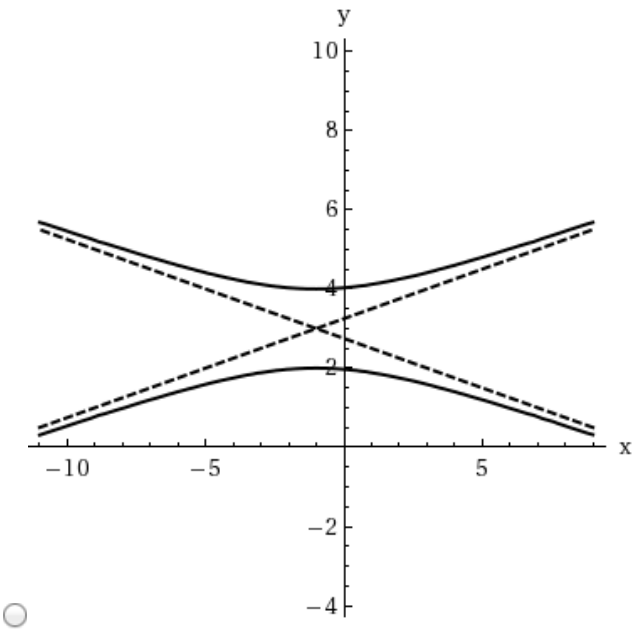
$(x, y) =$ (✔) (larger x-value)

Find the asymptotes of the hyperbola. (Enter your answers as a comma-separated list of equations.)

✔

Sketch its graph.





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