Score: 1 of 1 pt

1 of 21

2.2.67

Determine the center and radius of the circle described by the equation.

$(x+6)^2 + (y-3)^2 = 36$

center = $(-6,3)$ (Type your answer as an ordered pair.)

radius = 6

Score: 1 of 1 pt

2 of 21

2.2.69

Specify the center and the radius of the circle below.

$(x+3)^2 + (y+6)^2 = 23$

What is the center of the circle?

$(-3,-6)$ (Type an ordered pair.)

What is the radius of the circle?

$\sqrt{23}$ (Simplify your answer. Type an exact answer, using radicals as needed.)

2.2.81

a. Find the center and radius of the given circle.
b. Find the x- and y-intercepts of the graph of the given circle.

$$x^2 + y^2 + 4x - 6y + 4 = 0$$

The center is $(-2,3)$.
(Type an ordered pair.)

The radius is 3.
(Simplify your answer. Type an exact answer, using radicals as needed.)

Select the correct choice below and fill in any answer boxes within your choice.

- A. The x-intercept(s) is/are -2.
  (Use a comma to separate answers as needed. Type an exact answer, using radicals as needed.)
- B. There is no x-intercept.

Select the correct choice below and fill in any answer boxes within your choice.

- A. The y-intercept(s) is/are $3 \pm \sqrt{5}$.
  (Use a comma to separate answers as needed. Type an exact answer, using radicals as needed.)
- B. There is no y-intercept.

Score: 1 of 1 pt | 4 of 21 | **Test Score:** 88.21%, 18.52

10.2.7

Find the focus and directrix of the parabola with the given equation. Then match the equation to one of the graphs labeled A through D.

$x^2 = -3y$

What is the focus of the parabola?

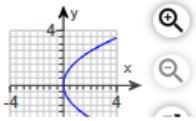
$\left(0, -\frac{3}{4}\right)$

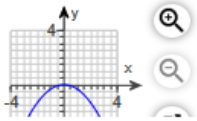
(Simplify your answer. Type an ordered pair. Use integers or fractions for any numbers in the expression.)

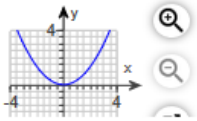
What is the directrix of the parabola?

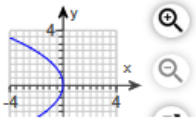
- A. $y = \frac{3}{4}$
- B. $x =$
- C. $x = -\frac{3}{4}$
- D. $y = -\frac{3}{4}$

Match the given equation to one of the graphs below.

A. 

B. 

C. 

D. 

Score: 0.33 of 1 pt | 5 of 21 | **Test Score:** 88.21%, 18.52 of 2

10.2.9

Find the focus and directrix of the parabola with the equation $8y^2 = -2x$. Then graph the parabola.

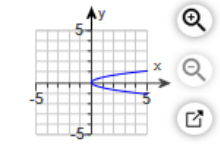
The focus is $\left(-\frac{1}{16}, 0\right)$.

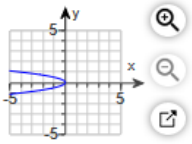
(Simplify your answer. Type an ordered pair. Type an integer or a fraction.)

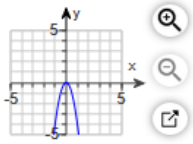
The equation for the directrix is $x = \frac{1}{16}$.

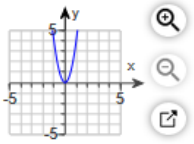
(Simplify your answer. Type an equation. Use integers or fractions for any numbers in the equation.)

Choose the correct graph for $8y^2 = -2x$ below.









I answered (-1,0) and x=1

Score: 0.67 of 1 pt | 6 of 21 | **Test Score:** 88.21%, 18.52 c

10.2.11

Find the focus and directrix of the parabola with the given equation. Then match the equation to one of the graphs labeled A through D.

$x^2 = 3y$

What is the focus of the parabola?

$\left(0, \frac{3}{4}\right)$

(Simplify your answer. Type an ordered pair. Use integers or fractions for any numbers in the expression.)

What is the directrix of the parabola?

A. $x = -\frac{3}{4}$

B. $x = \frac{3}{4}$

C. $y = \frac{3}{4}$

D. $y =$

Match the given equation to one of the graphs below.

A. B. C. D.

Question is complete. Tap on the red indicators to see incorrect answers.

"y= " is correct because it should not have been x=-3/4 which I did.

Score: 0 of 1 pt | 7 of 21 | **Test Score:** 88.21%, 18.5

10.2.27

Find the standard equation of the parabola that satisfies the given conditions. Also find the length of the latus rectum of the parabola.

Vertex: (4,4); directrix: $y = -4$

The standard equation of the parabola that satisfies the given conditions is $(x-4)^2 = 32(y-4)$.
(Type an equation. Type your answer in standard form. Simplify your answer.)

The length of the latus rectum is 32.
(Simplify your answer.)

I mess up this section. 32 is the latus rectum. The latus rectum is 2L=4a. L=2a. L is half of the full latus rectum. 32 here is the FULL latus rectum from one end to the other.

Score: 1 of 1 pt | 8 of 21 | **Test Score:** 88.21%, 18.52 of

10.2.29

Find the equation of the parabola described. Find the two points that define the latus rectum, and graph the equation.

Vertex at $(-2,3)$; focus at $(-3,3)$

Choose the correct equation of the parabola below.

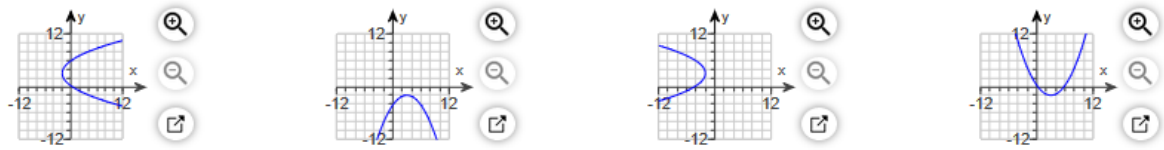
- A. $(x-2)^2 = 4(y+3)$
- B. $(x+2)^2 = -4(y+3)$
- C. $(x-2)^2 = 4(y-3)$
- D. $(y+3)^2 = 4(x+2)$
- E. $(y-3)^2 = -4(x-2)$
- F. $(x+2)^2 = -4(y-3)$
- G. $(y+3)^2 = 4(x-2)$
- H. $(y-3)^2 = -4(x+2)$ ✓

What are the coordinates of the two points that define the latus rectum?

$(-3,1),(-3,5)$
(Type an ordered pair. Use a comma to separate answers as needed.)

Choose the correct graph of the equation of the parabola below.

A. B. C. ✓ D.



10.2.41

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

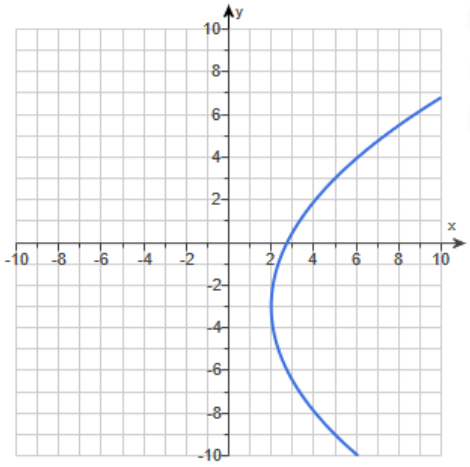
$(y+3)^2 = 12(x-2)$

The vertex of the parabola is $(2,-3)$.
(Type an ordered pair.)

The focus of the parabola is $(5,-3)$.
(Type an ordered pair.)

The directrix of the parabola is $x=-1$.
(Type an equation. Simplify your answer.)

Use the graphing tool to graph the parabola only.



10.2.45

Find the vertex, focus, and directrix of the parabola with the given equation. Then graph the parabola.

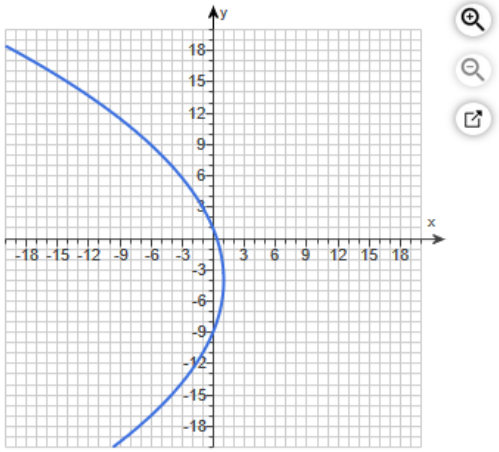
$(y+4)^2 = -24(x-1)$

The vertex of the parabola is $(1,-4)$. (Type an ordered pair.)

The focus of the parabola is $(-5,-4)$.
(Type an ordered pair.)

The directrix of the parabola is $x=7$. (Type an equation. Simplify your answer.)

Use the graphing tool to graph the parabola.



Score: 1 of 1 pt | 11 of 21 | **Test Score:** 88.21%, 18.52 of 21 p

10.3.7

Find the vertices and foci for the ellipse. Graph the equation.

$$\frac{x^2}{64}+\frac{y^2}{25}=1$$

What are the coordinates of the vertices?

$(8,0),(-8,0)$

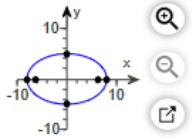
(Type an ordered pair. Type exact answers for each coordinate, using radicals as needed. Use a comma to separate answers as needed.)

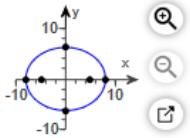
What are the coordinates of the foci?

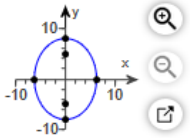
$(\sqrt{39},0),(-\sqrt{39},0)$

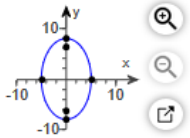
(Type an ordered pair. Type exact answers for each coordinate, using radicals as needed. Use a comma to separate answers as needed.)

Which graph shown below is the graph of the ellipse?

A. 

B. 

C. 

D. 

Score: 1 of 1 pt | 12 of 21 | **Test Score:** 88.21%, 18.52 of 21 pts

10.3.9

Identify the vertices and foci of the following ellipse. Graph the ellipse.

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

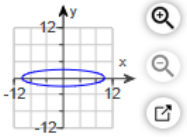
The vertices of the given ellipse are $(5,0),(-5,0)$.

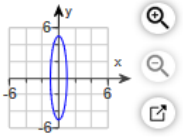
(Simplify your answer. Type an ordered pair. Type exact answers for each coordinate, using radicals as needed. Use a comma to separate answers as needed.)

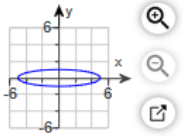
The foci of the given ellipse are $(-2\sqrt{6},0),(2\sqrt{6},0)$.

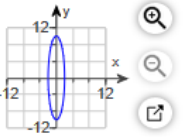
(Simplify your answer. Type an ordered pair. Type exact answers for each coordinate, using radicals as needed. Use a comma to separate answers as needed.)

Choose the correct graph below.

A. 

B. 

C. 

D. 

Score: 0.67 of 1 pt | 13 of 21 | **Test Score:** 88.21%, 18.52 of 21 p

10.3.13

Find the vertices and the foci of the ellipse with the given equation. Then draw its graph.

$$\frac{x^2}{4}+\frac{y^2}{9}=1$$

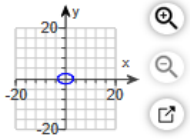
What are the vertices of the ellipse? $(0,-3),(0,3)$

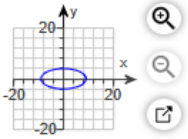
(Use a comma to separate answers. Type an ordered pair.)

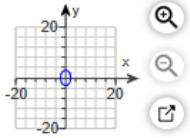
What are the foci of the ellipse? $(0,\sqrt{5}),(0,-\sqrt{5})$

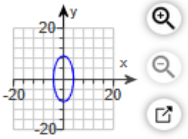
(Use a comma to separate answers. Type an ordered pair. Type an exact answer.)

Choose the correct graph of the ellipse.

A. 

B. 

C. 

D. 

I just forgot a common so you can ignore that

Score: 1 of 1 pt | 14 of 21 | **Test Score:** 88.21%, 18.52 of 21 pts

10.3.15

Find the vertices and foci of the ellipse. Graph the equation.

$$x^2+y^2=4$$

What are the coordinates of the vertices?

$(0,2),(0,-2),(-2,0),(2,0)$

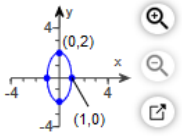
(Type an ordered pair. Use a comma to separate answers as needed.)

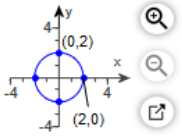
What are the coordinates of the foci?

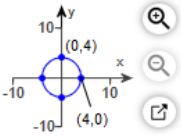
$(0,0)$

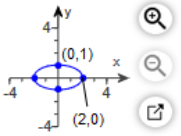
(Type exact answers for each coordinate, using radicals as needed. Type an ordered pair. Use a comma to separate answers as needed.)

Choose the correct graph below.

A. 

B. 

C. 

D. 

Score: 1 of 1 pt | 15 of 21 | **Test Score:** 88.21%, 18.52 of 21 pts

10.3.17

Identify the vertices and foci of the following ellipse. Graph the ellipse.

$x^2 + 36y^2 = 36$

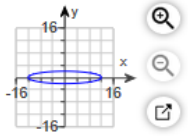
The vertices of the given ellipse are $(6,0),(-6,0)$.

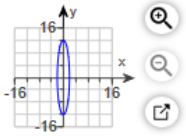
(Simplify your answer. Type an ordered pair. Type exact answers for each coordinate, using radicals as needed. Use a comma to separate answers as needed.)

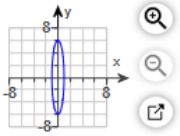
The foci of the given ellipse are $(\sqrt{35},0),(-\sqrt{35},0)$.

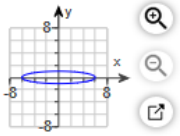
(Simplify your answer. Type an ordered pair. Type exact answers for each coordinate, using radicals as needed. Use a comma to separate answers as needed.)

Choose the correct graph below.

A. 

B. 

C. 

D. 

Score: 1 of 1 pt | 16 of 21 | **Test Score:** 88.21%, 18.52 of

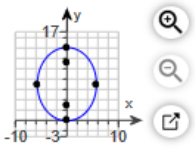
10.3.29

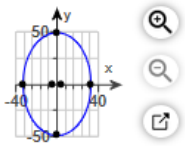
Find the standard form of the equation for the ellipse with foci (0, ±4), and vertex (0,7). Graph the equation.

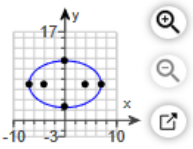
The equation of the ellipse in the standard form is $\frac{x^2}{33} + \frac{y^2}{49} = 1$.

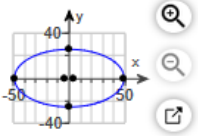
(Type exact answers, using radicals as needed. Use integers or fractions for any numbers in the equation.)

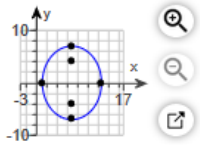
Choose the correct graph below.

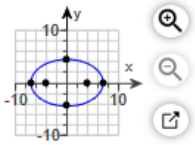
A. 

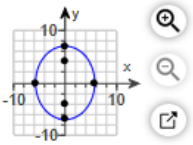
B. 

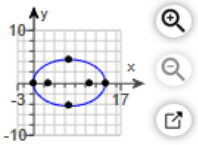
C. 

D. 

E. 

F. 

G. 

H. 

Score: 1 of 1 pt | 17 of 21 | **Test Score:** 88.21%, 18.52 of 21 p

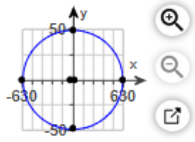
10.3.31

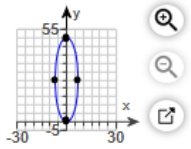
Find the standard form of the equation for the ellipse with foci $(\pm 24,0)$, and y-intercepts ± 7. Graph the equation.

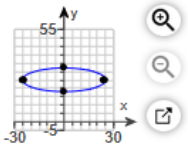
The equation of the ellipse in the standard form is $\frac{x^2}{625} + \frac{y^2}{49} = 1$.

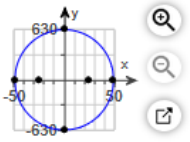
(Type exact answers, using radicals as needed. Use integers or fractions for any numbers in the equation.)

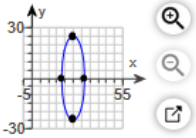
Choose the correct graph below.

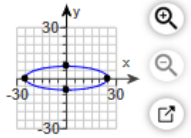
A. 

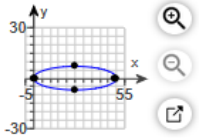
B. 

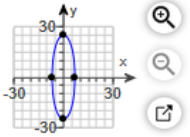
C. 

D. 

E. 

F. 

G. 

H. 

Score: 1 of 1 pt | 18 of 21 | **Test Score:** 88.21%, 18.52 of

10.3.33

Find the equation of the ellipse, satisfying the conditions. Sketch its graph.

foci $(\pm 8,0)$, and x-intercepts $(\pm 9,0)$

Choose the correct equation of the ellipse.

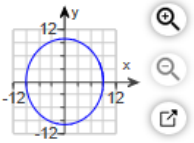
A. $\frac{x^2}{145} + \frac{y^2}{81} = 1$

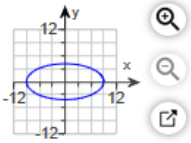
B. $\frac{x^2}{81} + \frac{y^2}{145} = 1$

C. $\frac{x^2}{17} + \frac{y^2}{81} = 1$

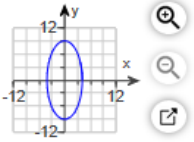
D. $\frac{x^2}{81} + \frac{y^2}{17} = 1$

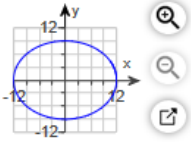
Choose the correct graph of the ellipse.

A. 

B. 

v1

C. 

D. 

Score: 1 of 1 pt | 19 of 21 | **Test Score:** 88.21%, 18.52 of 21

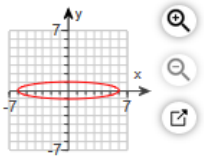
10.4.9

Graph the hyperbola on paper and then choose the correct graph.

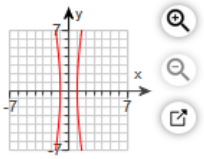
$$\frac{y^2}{1} - \frac{x^2}{36} = 1$$

Choose the correct graph on the right.

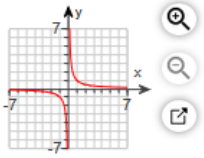
A.



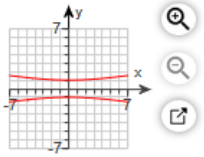
B.



C.



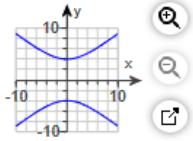
D.

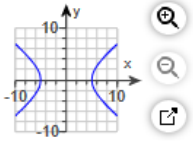


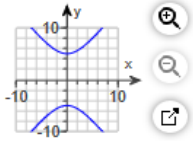
Score: 1 of 1 pt | 20 of 21 | **Test Score:** 88.21%, 18.52 of 2

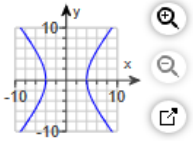
10.4.11

Match the equation $16x^2 - 25y^2 = 400$ with one of the following graphs.



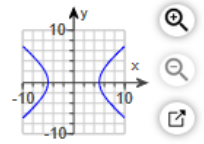




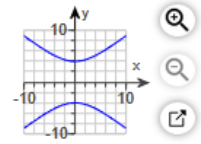


Choose the correct graph below.

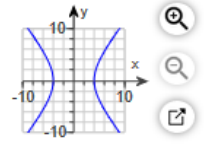
A.



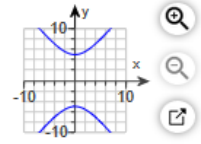
B.



C.



D.



10.4.15

The equation of a hyperbola is given. Complete parts **(a)** through **(e)**.

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

(a) Find the vertices, the foci, and the transverse axis of the hyperbola.

The vertices are $(-1,0),(1,0)$.
(Type an ordered pair. Type exact answers, using radicals as needed. Use a comma to separate answers.)

The foci are $(-5\sqrt{2},0),(5\sqrt{2},0)$.
(Type an ordered pair. Type exact answers, using radicals as needed. Use a comma to separate answers.)

Does the hyperbola have its transverse axis on the x-axis or y-axis?

- [x] x-axis
- [ ] y-axis

(b) State how the hyperbola opens. Choose the correct answer below.

- [x] The hyperbola opens left and right.
- [ ] The hyperbola opens up and down.

(c) Find the vertices of the fundamental rectangle.

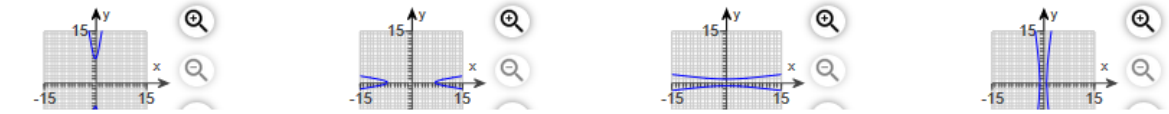
The vertices of the fundamental rectangle are $(1,7),(-1,-7),(-1,7),(1,-7)$.
(Type an ordered pair. Type exact answers, using radicals as needed. Use a comma to separate answers.)

(d) Write the equations of the asymptotes. Choose the correct answer below.

The equations of the asymptotes are $y = \pm 7x$.
(Simplify your answer. Use integers or fractions for any numbers in the expression.)

(e) Graph the hyperbola by using the vertices and the asymptotes. Choose the correct graph below.

A. B. C. D.



I lost points because I didn't simplify the foci. I had sqrt(50) and this wasn't simplified.