1 - 5, 10, 17, 20, 23, 26, 27, 30, 50, 51, 52

LarTrig9 6.6.001. (2534306) (Add) -- view
Comment: not randomized

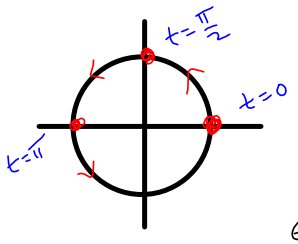
Fill in the blank.

If f and g are continuous functions of t on an interval I, then the set of ordered pairs $(f(t), g(t))$ is a [---Select---] plane curve C.

LarTrig9 6.6.002. (2456525) (Add) -- view
Comment: not randomized

Fill in the blank.

The [---Select---] orientation of a curve is the direction in which the curve is traced out for increasing values of the parameter.



$x = \cos(t)$

$y = \sin(t)$

$\{(\cos(t), \sin(t)) \mid t \geq 0\}$

t	x	y
0	1	0
$\frac{\pi}{2}$	0	1
π	-1	0
$\frac{3\pi}{2}$	0	-1

Eliminate Parameter (Pythagorus)

$x^2 + y^2 = \cos^2(t) + \sin^2(t) = 1$

$x^2 + y^2 = 1$

LarTrig9 6.6.003. (2456585) (Add) -- view
Comment: not randomized

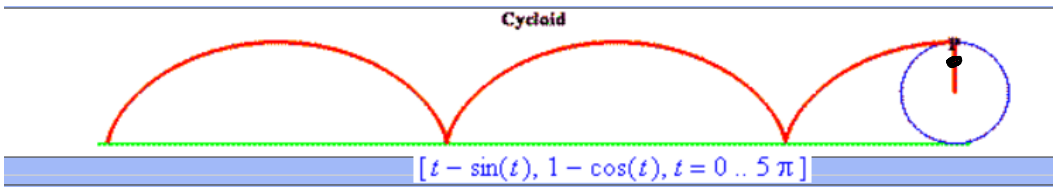
Fill in the blank.

The process of converting a set of parametric equations to a corresponding rectangular equation is called [---Select---] eliminating the parameter .

LarTrig9 6.6.004. (2534307) (Add) -- view
Comment: not randomized

Fill in the blank.

A curve traced out by a point on the circumference of a circle as the circle rolls along a straight line in a plane is called a ---Select--- cycloid .



$(t - \sin(t), 1 - \cos(t))$

Neat Stuff at National Curve Bank:

http://curvebank.calstatela.edu/cycloidmaple/Oids/images/OidEG1.gif

http://curvebank.calstatela.edu/cycloidmaple/cycloid.htm

LarTrig9 6.6.005. (2524396) (Add) -- view
Comment: slightly modified

7m

Consider the parametric equations shown below.

$x = \sqrt{t} \quad y = 3 - t$

(a) Create a table of x- and y-values using $t = 0, 1, 2, 3$, and 4.

(b) Plot the points (x, y) generated in part (a), and sketch a graph of the parametric equations.

(c) Find the rectangular equation by eliminating the parameter. Sketch its graph.

t	x	y
0	0	3
1	1	2
2	$\sqrt{2}$	1
3	$\sqrt{3}$	0
4	2	−1

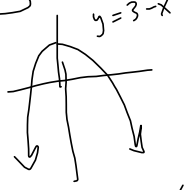
$x = \sqrt{t}$

$x^2 = t$

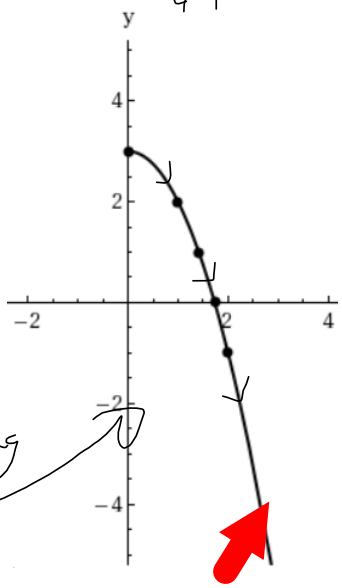
$y = 3 - t$

$y = 3 - x^2$

This has a bigger domain than the parametric, since $\sqrt{t} \Rightarrow t \geq 0$ & $\sqrt{t} \geq 0$ by defn, so $x \geq 0$.



Needs restricting to recapture



LarTrig9 6.6.010.MI. (2540175) (Add) -- view

Consider the following.

$x = 4 - 2t$
$y = 2 + 4t$

(a) Sketch the curve represented by the parametric equations (indicate the orientation of the curve).

(b) Eliminate the parameter and write the resulting rectangular equation whose graph represents the curve.

Adjust the domain of the rectangular equation, if necessary.

Nov 20-4:08 PM

LarTrig9 6.6.017. (2519563) (Remove) -- view
Comment: not randomized

Consider the following.

$x = t^3$
$y = t^2$

(a) Sketch the curve represented by the parametric equations (indicate the orientation of the curve).

(b) Eliminate the parameter and write the resulting rectangular equation whose graph represents the curve.

Nov 20-4:43 PM

LarTrig9 6.6.020. (2534247) (Add) -- view

Consider the following.

$$x = t - 2$$

$$y = \frac{t}{t-2}$$

(a) Sketch the curve represented by the parametric equations (indicate the orientation of the curve).

(b) Eliminate the parameter and write the resulting rectangular equation whose graph represents the curve.

Adjust the domain of the rectangular equation, if necessary.

- ○ all real numbers $x \neq 0$

Nov 20-4:45 PM

LarTrig9 6.6.023. (2519573) (Add) -- view

Consider the following.

$x = 4 \cos \theta$

$y = 2 \sin \theta$

(a) Sketch the curve represented by the parametric equations (indicate the orientation of the curve).

(b) Eliminate the parameter and write the resulting rectangular equation whose graph represents the curve.

Adjust the domain of the rectangular equation, if necessary.

Nov 20-4:51 PM

LarTrig9 6.6.026. (2534190) (Add) -- view

Consider the following.

$x = \cos\theta$

$y = 3 \sin 2\theta$

(a) Sketch the curve represented by the parametric equations (indicate the orientation of the curve).

(b) Eliminate the parameter and write the resulting rectangular equation whose graph represents the curve.

Adjust the domain of the rectangular equation, if necessary.

Nov 20-4:54 PM

LarTrig9 6.6.027. (2534204) (Remove) -- view

Consider the following.

$x = 1 + \cos\theta$

$y = 1 + 4\sin\theta$

(a) Sketch the curve represented by the parametric equations (indicate the orientation of the curve).

(b) Eliminate the parameter and write the resulting rectangular equation whose graph represents the curve.

Adjust the domain of the rectangular equation, if necessary.

Nov 20-5:42 PM

LarTrig9 6.6.030. (2524409) (Add) -- view

Consider the following.

$x = e^t$
$y = e^{5t}$

(a) Sketch the curve represented by the parametric equations (indicate the orientation of the curve).

(b) Eliminate the parameter and write the resulting rectangular equation whose graph represents the curve.

Adjust the domain of the rectangular equation, if necessary.

Nov 20-5:45 PM

LarTrig9 6.6.050.MI. (2456330) (Add) -- view

Eliminate the parameter and obtain the standard form of the rectangular equation.

Circle: $x = h + r \cos \alpha$, $y = k + r \sin \alpha$

LarTrig9 6.6.051. (2534688) (Add) -- view

Comment: not randomized

Eliminate the parameter and obtain the standard form of the rectangular equation.

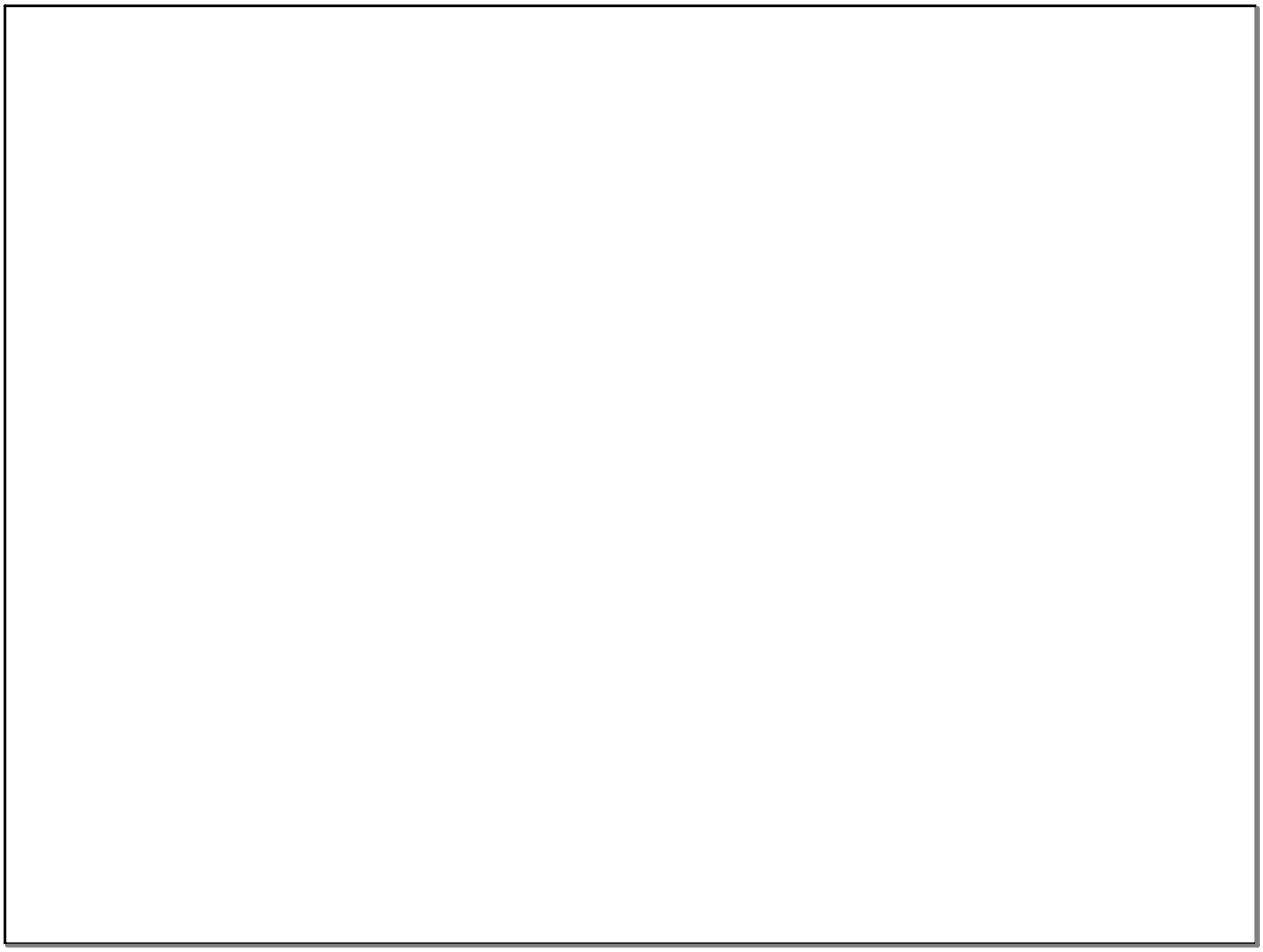
Ellipse: $x = h + a \cos \theta$, $y = k + b \sin \theta$

LarTrig9 6.6.052. (2456135) (Add) -- view

Eliminate the parameter and obtain the standard form of the rectangular equation.

Hyperbola: $x = h + a \sec(\beta)$, $y = k + b \tan(\beta)$

Nov 20-6:01 PM



Nov 20-6:02 PM