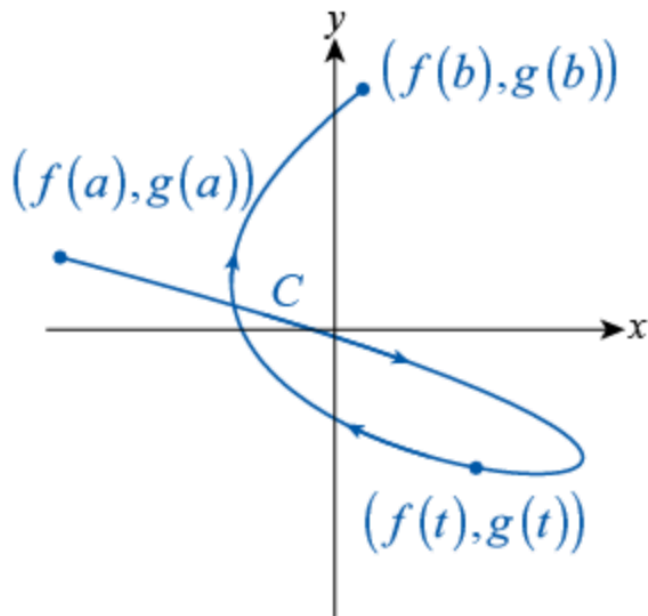


Parametric Equations:

$$x = f(t) , y = g(t) , a \leq t \leq b$$



Example 1.

Sketch the curve defined parametrically by $x = \cos t$, $y = 2\sin t$, $0 \leq t \leq 2\pi$.

t	x	y
0	1	0
$\pi/4$	$\sqrt{2}/2$	$\sqrt{2}$
$\pi/2$	0	2
$3\pi/4$	$-\sqrt{2}/2$	$\sqrt{2}$
π	-1	0

Desmos Grapher:

1 " If you want to graph a parametric, just make each coordinate a function of "t". Click on the "domain" to change it

2 $(\cos t, 2 \sin t)$
 $0 \leq t \leq 2\pi$

3 $(1,0)$
 Show Label

4 $(\frac{\sqrt{2}}{2}, \sqrt{2})$
 Show Label

5 $(0,2)$
 Show Label

6 $(\frac{-\sqrt{2}}{2}, \sqrt{2})$
 Show Label

7 $(-1,0)$
 Show Label

