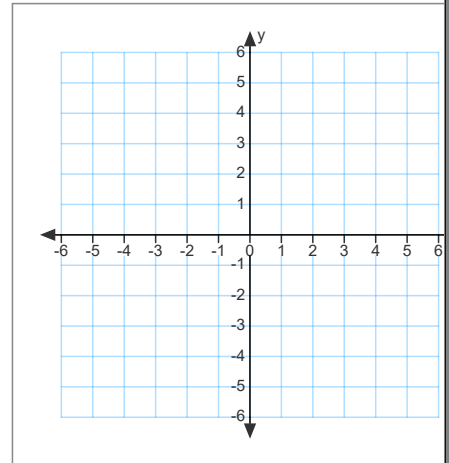


Warm up

1. Find the rectangular equation with the following parameters. Make a sketch and state the domain and range of the equation.


a. $x = t$
 $y = t + 3$

b. $x = \sqrt{t+1}$
 $y = t - 2$




Apr 23-8:59 AM


GO COUGARS!





p 704 Homework Questions


In Exercises 1-6, match the set of parametric equations with its graph. [The graphs are labeled (a), (b), (c), (d), (e), and (f).]


(a) 

(b) 

(c) 

(d) 

(e) 

(f) 

1. $x = t, y = t + 2$ 2. $x = t^2, y = t - 2$
 3. $x = \sqrt{t}, y = t$ 4. $x = \frac{1}{t}, y = t + 2$
 5. $x = \ln t, y = \frac{1}{t} - 2$ 6. $x = -2\sqrt{t}, y = e^t$

$y = \sqrt{x} - 2$ d
 $x = \ln t$
 $t = \frac{1}{x} \quad y = \frac{1}{x} + 2$
 $x = \ln t$
 $e^x = t$
 $y = \frac{1}{2}e^x - 2$

In Exercises 11-26, sketch the curve represented by the parametric equations (indicate the orientation of the curve). Use a graphing utility to confirm your result. Then eliminate the parameter and write the corresponding rectangular equation whose graph represents the curve. Adjust the domain of the resulting rectangular equation, if necessary.

11. $x = t, y = -4t$ 12. $x = t, y = \frac{1}{t}$
 13. $x = 3t - 3, y = 2t + 1$ 14. $x = 3 - 2t, y = 2 + 3t$
 15. $x = \frac{1}{2}t, y = t^2$ 16. $x = t, y = t^3$
 17. $x = t + 2, y = t^2$ 18. $x = \sqrt{t}, y = 1 - t$
 19. $x = 2t, y = |t - 2|$ 20. $x = |t - 1|, y = t + 2$

$\frac{x}{2} = t$
 $\frac{1}{2}x = t$
 $y = \frac{1}{2}x - 2$
 $y = \frac{1}{2}(x - 4)$

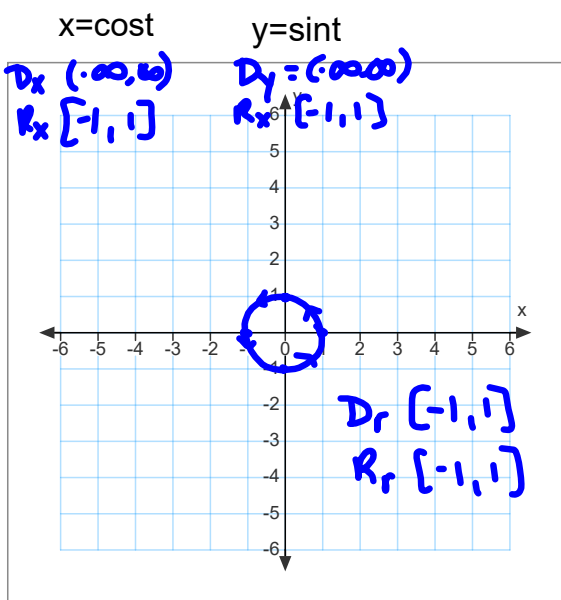
D: (0,0) D_y: (0,∞)
 R: (∞,∞) R_y: [0,∞)

-2	-4	4
-1	-2	3
0	2	2
2	4	1

Feb 2-9:51 PM

9.5 Parametric Equations Day 2

Apr 19-9:11 AM



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

$$\begin{aligned}
 &(x = \cos t)^2 \\
 &x^2 = \cos^2 t \\
 &+ y^2 = \sin^2 t \\
 \hline
 &x^2 + y^2 = 1
 \end{aligned}$$

Apr 19-9:13 AM

$x = 2 + 3\cos t$ $y = -5 + 3\sin t$
 $D_x (-\infty, \infty)$ $D_y (-\infty, \infty)$
 $R_x [-1, 5]$ $R_y [-8, 2]$

t	x	y
0	5	-5
$\frac{\pi}{2}$	2	-2
π	-1	-5
$\frac{3\pi}{2}$	2	-8
2π	5	-5

$\frac{x-2}{3} = \cos t$
 $\frac{y+5}{3} = \sin t$
 $\frac{(x-2)^2}{9} + \frac{(y+5)^2}{9} = 1$
 Circle: $(x-2)^2 + (y+5)^2 = 9$
 $D: [-1, 5]$
 $R: [-8, 2]$

Apr 19-9:16 AM

$x = 4\cos t$ $y = 2\sin t$
 $D_x (-\infty, \infty)$ $D_y (-\infty, \infty)$
 $R_x [-4, 4]$ $R_y [-2, 2]$

t	x	y
0	4	0
$\frac{\pi}{2}$	0	2
π	-4	0
$\frac{3\pi}{2}$	0	-2
2π	4	0

$\frac{x}{4} = \cos t$
 $\frac{y}{2} = \sin t$
 $\frac{x^2}{16} + \frac{y^2}{4} = 1$

Apr 19-9:22 AM

HOMework



Packet p 1 #1-15 odd, 18, 20
p705 21, 27, 29 all by hand

Feb 2-9:51 PM