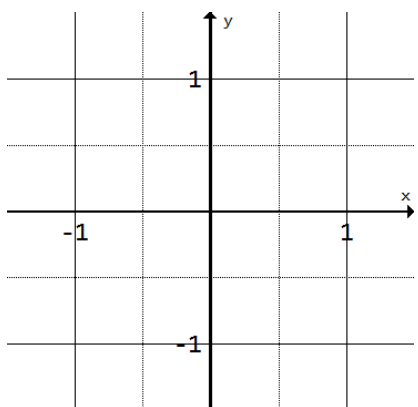


PC8-3 Ellipse and Circle Graphing Practice

Graph these parametric equations by filling out the table. Let $0 \leq t \leq 2\pi$.

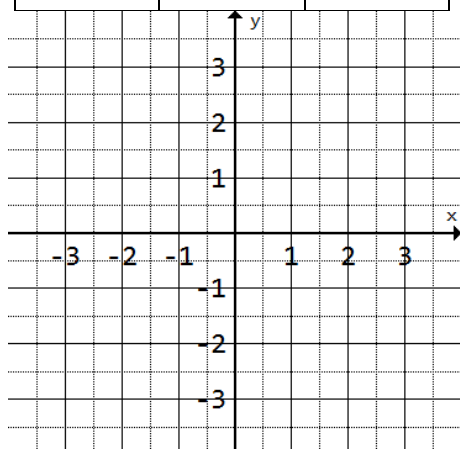
1. $\begin{cases} x(t) = \cos(t) \\ y(t) = \sin(t) \end{cases}$

t	$x(t)$	$y(t)$
0		



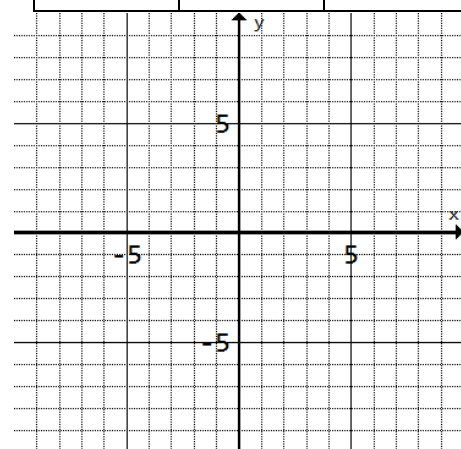
2. $\begin{cases} x(t) = 3 \cos(t) \\ y(t) = 3 \sin(t) \end{cases}$

t	$x(t)$	$y(t)$
0		

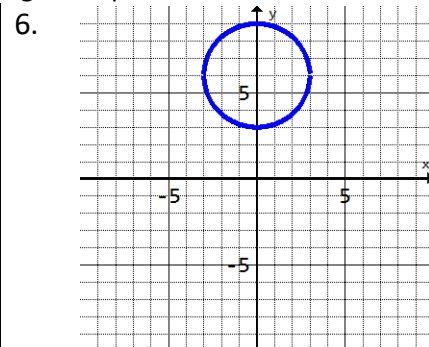
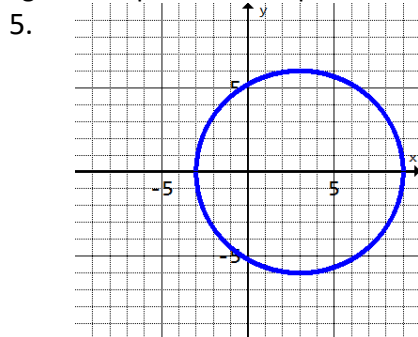
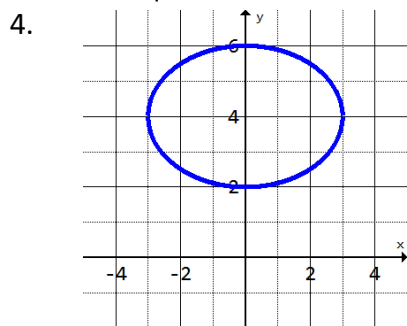


3. $\begin{cases} x(t) = 5 + 3 \cos(t) \\ y(t) = -2 + 3 \sin(t) \end{cases}$

t	$x(t)$	$y(t)$
0		



Write the equations for each of the following as both parametric equations and rectangular equations.



7. Given the parametric equation, write as an implicit equation.

$$\begin{cases} x(t) = t - 4 \\ y(t) = t^2 \end{cases}$$

8. Given the parametric equation, write as an implicit equation.

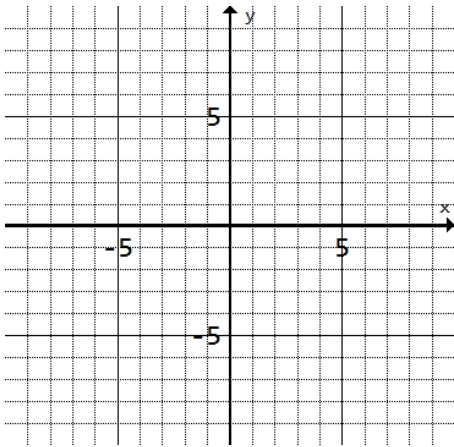
$$\begin{cases} x(t) = t^2 \\ y(t) = 3t + 1 \end{cases}$$

9. Given the parametric equation, write as an implicit equation.

$$\begin{cases} x(t) = t^2 + 5 \\ y(t) = 2t - 1 \end{cases}$$

10. a) Graph the parametric equation.

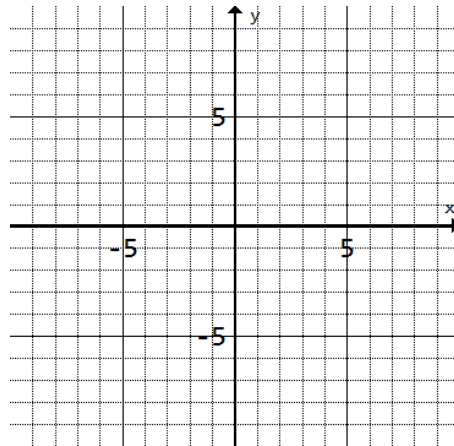
$$\begin{cases} x(t) = 3 + 2 \cos(t) \\ y(t) = -2 + 4 \sin(t) \\ 0 \leq t \leq 2\pi \end{cases}$$



b) Write the rectangular equation of the graph.

11. a) Graph the parametric equation.

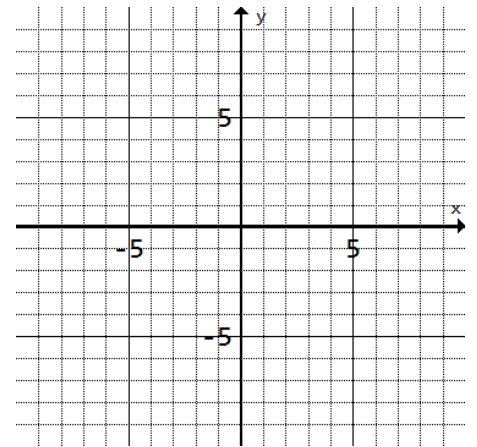
$$\begin{cases} x(t) = -1 + 4 \cos(t) \\ y(t) = 2 + 3 \sin(t) \\ 0 \leq t \leq 2\pi \end{cases}$$



b) Write the rectangular equation of the graph.

12. a) Graph the parametric equation.

$$\begin{cases} x(t) = -4 + 5 \cos(t) \\ y(t) = 3 + 5 \sin(t) \\ 0 \leq t \leq 2\pi \end{cases}$$



b) Write the rectangular equation of the graph.

13. Graph the parametric equation on the interval $0 \leq t \leq 4\pi$.

$$\begin{cases} x(t) = t \\ y(t) = 2 \cos(t) + 1 \end{cases}$$