Name _____ Date _____

Practice 10.1b: Parametric Equations

1. Eliminate the parameter and write the rectangular equation for the curves.

a. $x = t$
$y = -2t$

b. $x = 3t - 1$
$y = 2t + 1$

c. $x = t + 1$
$y = t^2$

d. $x = \sqrt{t}$
$y = 1 - t$

e. $x = t - 2$
$y = 3t^2 + 4$

f. $x = t - 1$
$y = \dfrac{t}{t-1}$

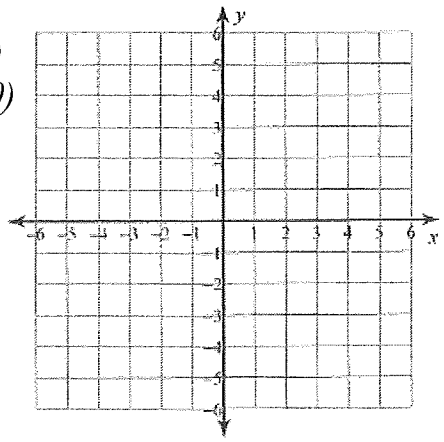
g. $x = 2\cos(\theta)$
$y = 2\sin(\theta)$

h. $x = 4\sin(\theta)$
$y = 3\cos(\theta)$

2. Use a graphing calculator to sketch the curves. Use $(\cos(\theta))^3$ for $\cos^3(\theta)$ and $(\sin(\theta))^3$ for $\sin^3(\theta)$.

a. $x = 4\cos(\theta)$
$y = 2\sin(2\theta)$

$0 \le t \le 2\pi$



b. $x = 4\cos^3(\theta)$
$y = 6\sin^3(\theta)$

$0 \le t \le 2\pi$