

Name: _____

12.4 Parametric Basics

1–22 ■ A pair of parametric equations is given.

(a) Sketch the curve represented by the parametric equations.

(b) Find a rectangular-coordinate equation for the curve by eliminating the parameter.

1. $x = 2t$, $y = t + 6$

3. $x = t^2$, $y = t - 2$, $2 \leq t \leq 4$

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

7. $x = \frac{1}{t}$, $y = t + 1$

9. $x = 4t^2$, $y = 8t^3$

11. $x = 2 \sin t$, $y = 2 \cos t$, $0 \leq t \leq \pi$

16. $x = \cos 2t$, $y = \sin 2t$

23–26 ■ Find parametric equations for the line with the given properties.

23. Slope $\frac{1}{2}$, passing through $(4, -1)$

25. Passing through $(6, 7)$ and $(7, 8)$