

W12 Regular

Due date: Sunday 4/5, 11:59pm

01 ★

✍ Convert parametric curve to function graph

Write the following curves as the graphs of a function $y = f(x)$. (Find $f(x)$ for each case.)

(a) $x = t, y = t$ and $-\infty < t < \infty$

(b) $x = e^t, y = e^t$ and $-\infty < t < \infty$

Sketch each curve.

✍ Convert function graph to parametric curve

Find parametric curves $c(t) = (x(t), y(t))$ whose images are the following graphs:

(a) $y = 3x - 4$ and $c(0) = (2, 2)$

(b) $y = 3x - 4$ and $c(3) = (2, 2)$

✍ Parametric concavity

Find the interval(s) of t on which the parametric curve $c(t) = (t^2, t^3 - 4t)$ is concave up.