## Parametric Equations

## Question

Which of the following parametric curves does not trace out the unit circle?
A. $x=\cos (t), y=\sin (t), 0 \leq t \leq 2 \pi$
B. $x=\sin ^{2}(t), y=\cos ^{2}(t), 0 \leq t \leq 2 \pi$
C. $x=\sin \left(t^{2}\right), y=\cos \left(t^{2}\right), 0 \leq t \leq \sqrt{2 \pi}$
D. $x=\sin (2 t), y=\cos (2 t), 0 \leq t \leq \pi$

