

Quiz #1; Tuesday, date: 01/23/2018
MATH 53 Multivariable Calculus with Stankova
Section #114; time: 2 – 3:30 pm
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Student name:

1. Consider the parametric equation for a curve:

$$x = \sqrt{t-1}, \quad y = \sqrt{t+3}.$$

Eliminate the parameter to find a Cartesian equation of the curve. Sketch the curve and indicate with an arrow the direction in which the curve is traced as the parameter increases.

2. *True / False?* A Cartesian equation $f(x, y) = 0$ of a curve in the plane can always be re-written to define the curve by some function: $y = g(x)$, or by some function: $x = h(y)$.
3. *True / False?* The polar curve

$$r = 2 \cos \theta, \quad 0 \leq \theta \leq 6\pi$$

is a circle centered at $(1, 0)$, traversed 6 times.