Quiz 1 Math 232, Calculus III, Fall 2016 Name:

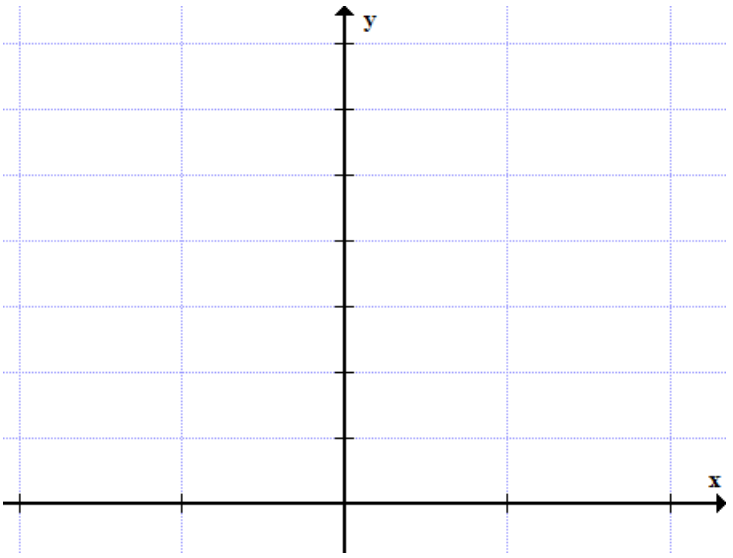
1. Sketch the curve defined by the parametric equations

$$x = \sin(\pi t), \quad y = t^2 + t, \quad 0 \leq t \leq 2$$

by using 5 t-values. Start at $t = 0$ and increase by $1/2$.

(a) Make a T-table.

(b) Sketch



2. Find $\dfrac{dy}{dx}$

3. Find an equation of the tangent line on $x = \sin(\pi t)$, $y = t^2 + t$ at the point $(0, 2)$