

Quiz 1

Name: _____/Id: _____/Serial # ____Section _____

1) For the parametric curve $x = t + \ln t$, $y = t - \ln t$, find $\frac{d^2y}{dx^2}$ and the values of t for

which the curve is concave up (Use formula $\frac{d^2y}{dx^2} = \frac{\frac{d}{dt}\left(\frac{dy}{dx}\right)}{\frac{dx}{dt}}$) (15 points)

2) Draw the parametric curve $x = t^2$, $y = t^3$, $-2 \leq t \leq 2$, give its initial and final point and indicate by arrow the direction of motion along the curve as t increases. (5 points)