

Math 201-152 Quiz 1 Version A

Name _____ Section ___ Id _____ Serial # _____

a) Find the Cartesian equations of the curve with parametric equations

$$x = \sin t, y = \cos 2t$$

(Use the identity $\cos 2t = \cos^2 t - \sin^2 t$)

b) Draw a sketch of the graph in the interval $\frac{-\pi}{2} \leq t \leq \frac{\pi}{2}$. Give the initial point, final point and direction of motion.

c) Set up, but do not evaluate, the area bounded by the parametric curve $x = e^t, y = 2t - t^2$ and the x - axis