

King Fahd University of Petroleum & Minerals
Department of Mathematics and Statistics
(Semester 121) Math 201 Quiz # 1

Name: _____ I.D. # _____ Sr. # _____

Consider the parametric curve defined by $x = \cos^3 t$, $y = \sin^3 t$, $0 \leq t \leq \pi/2$,

- (a) Find the slope of the curve at $t = \pi/4$.
- (b) Find the length of the curve.
- (c) Find the area of the surface generated by revolving the curve around the y-axis.