King Fahd University of Petroleum and Minerals

MATH 201 QUIZ #1 Term 142

Name: ID:

Q1. Convert the curve $x = \sin t, \quad y = \cos^2 t, \quad 0 \le t \le 2\pi$ into Cartesian equations. Sketch the curve with the direction of the motion.

Q2 Find equations of the tangents to the curve $x = 3t^2 + 1, y = 2t^3 + 1$ that pass through the point $(4,3)$.

Q3 Find the length of the curve $x = 3\cos t - \cos 3t, y = 3\sin t - \sin 3t;\ 0 \leq t \leq \pi$

Q4 Graph the polar curve $r = 1 - 2\sin(\theta)$ and find the equations of the tangents to the curve at the origin.