KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
MATH 201-12
Quiz # 1
Sep 12, 2013

NAME:	ID#:

SHOW ALL YOUR WORK

1. **(4points)** Find the Cartesian equation of the curve $x = 3 - 3t,\ y = 2t,\ 0 \leq t \leq 1$. Sketch the curve and indicate with an arrow the direction in which the curve is traced.

2. **(3points)** Find the exact length of the curve $x = t^3,\ y = 3t^2/2,\ 0 \leq t \leq \sqrt{3}$.

3. **(3points)** Find all representations of the polar coordinates of the point whose Cartesian coordinates are $\left(\frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}\right)$ with $-\pi \leq \theta < 2\pi$ and $r \leq 0$.