# ING FAHD UNIVERSITY OF PETROLEUM AND MINERALS <br> DEPARTMENT OF MATHEMATICAL SCIENCES <br> MATH 201-11 <br> Quiz \# 1 <br> September 18, 2007 

NAME: ID\#:

## SHOW ALL YOUR WORK

1. (3points)Find the length of the curve $x=1+3 t^{2}, y=4+2 t^{3}, 0 \leq t \leq 1$.
2. (4points) Find $\frac{d y}{d x}$ and $\frac{d^{2} y}{d x^{2}}$ for the parametric curve $x=t+\ln t, y=t-\ln t$.
3. (3points) Eleminate $t$ to find the Cartesian equation of the curve $x=t^{2}-1, y=$ $t^{2}-2 t+3,-1 \leq t \leq 0$.
