MthU242 | Calculus II
Northeastern University | Professor Gilmore
Quiz #5 | Feb. 8, 2007
20 Minutes | Name:_____.

Show All Your Work

1. Calculate the arc length along the curve given by the equations x = cos(3t) and y = sin(3t) from t = 0 to t = $\frac{\pi}{6}$.

2. a. Sketch the finite region bounded by the curve x = $\sin(4y^2)$, the lines y = 0 and y = $\frac{\sqrt{\pi}}{2}$ and the line x = 0.

b. Calculate the volume obtained when this region is rotated about the x axis.

Name:_____.