King Fahd Univ. of Petroleum and Minerals
Faculty of Sciences
Department of Mathematics and Statistics

QUIZ No. 3
(MATH. 102-111 Section 2)

Name:
ID:

Prob. 1
Set up the integral (without computing) of the volume of the solid obtained by rotating the region bounded by $y = 1/(1+x^2)$, $y = 0$, $x = 0$, $x = 2$ about $x = 2$.

Prob. 2
Find the volume of the solid obtained by rotating the region $y = x^2$, $x = y^2$ about $x = -1$

$$\lim_{x \to 0} \frac{\int_0^{3x} \sin^3 t \, dt}{\sin^4 x}$$