King Fahd Univ. of Petroleum and Minerals  
Faculty of Sciences  
Department of Mathematical Sciences  

QUIZ No. 2  
(MATH. 102-042 Sections 1 & 2)

Name:  
ID:  

Prob. 1  
Evaluate  
a)  
\[ \int \frac{dx}{\sqrt{x}(\sqrt{x} + 1)} \]  
b)  
\[ \int \frac{\sin(\ln x^3)dx}{x} \]

Prob. 2  
Let \( R \) be the region bounded by \( y = 9 - x^2 \) and \( y = 0 \). Find the volume of the solid obtained by revolving \( R \) about  
a) \( y = 13 \)  
b) \( x = 5 \)