KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS AND STATISTICS
MATH 102 - QUIZ 1

Name:
Student ID #:

Question 1. Show that $\displaystyle\int_0^2 \tan^{-1} x\,dx \leq \pi$.

Question 2. Find $f(1) - f(0)$ if $\displaystyle\int_x^{e^x} f(t)\,dt = e^x \cos(x)$.

Question 3. Evaluate the indefinite integral $\displaystyle\int \frac{\sin 2x + 1}{\cos^2 x}\,dx$.

Your Solution.