

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS AND STATISTICS
MATH 101 - QUIZ 7

Name:

Student ID #:

Question 1. Calculate the following limits

a) $\lim_{x \rightarrow 0} \frac{5^x - 4^x}{3^x - 2^x}$ b) $\lim_{x \rightarrow 1^-} (2 - x)^{\tan(\pi x/2)}$

Question 2. Find the area of the largest rectangle that can be inscribed in the semicircle $y = \sqrt{1 - x^2}$.

Your Solution.