

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
Math 101 (172) Sec 10 - Quiz 4

Name:

ID:

Serial No.:

1.  $\lim_{x \rightarrow 0} \frac{\sin^{-1}(2x)}{x}$

2.  $\lim_{x \rightarrow 0^+} (1 + \sin(3x))^{\cot x}$

3. Find the interval(s) where the graph of the function  $f(x) = (1 - x)e^x$  is concave downward on

4. The area of the largest rectangle that can be inscribed in a circle of radius 1 is