

King Fahd University of Petroleum & Minerals
Department of Mathematics and Statistics
(Semester 121) Math 101 Quiz # 2

Name: _____ I.D. # _____ Sr. # _____

1. Given the function $f(x) = \begin{cases} 1 - x & \text{if } x < -1 \\ -x^2 - 3x & \text{if } -1 \leq x \leq 0 \\ \tan x & \text{if } x > 0 \end{cases}$, write down $f'(x)$ very carefully.
2. Given the function $f(x) = \frac{1}{x+1}$, find $f'(1)$ using the definition of the derivative (i.e. using limits).