King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 101 (172) Sec 12 - Quiz 3

Name: ID: Serial No.:

1. Use a linear approximation to estimate $\sqrt[3]{1001}$

2. Find $\dfrac{d}{dx} tan^{-1}(\tanh x)$

3. Find the absolute maximum and absolute minimum values of $f(x) = \sqrt[3]{t}(8 - t)$ on $[0, 8]$.

4. Suppose that $3 \leq f'(x) \leq 5$ for all values of x. Show that $18 \leq f(8) - f(2) \leq 30$.