King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 101 (172) Sec 08 - Quiz 3

Name: ID: Serial No.:

1. Use a linear approximation to estimate $\tan 44^o$

2. Find $\dfrac{d}{dx}\sqrt[4]{\dfrac{1+\tanh x}{1-\tanh x}}$

3. Find the absolute maximum and absolute minimum values of $f(x) = \dfrac{x}{x^2 - x + 1}$ on $[0, 3]$.

4. If $f(1) = 10$ and $f'(x) \geq 2$ for $\leq x \leq 4$, how small can $f(4)$ possibly be?