

Math 101 (Term 162) - Quiz 4

Student Name _____ Student ID: _____

Exercise 1 [4 points]

Use linear approximation to approximate $(1.001)^{1000}$

Exercise 2 [3 points]

Let $f(x) = x^3 - 3x + 1$. Find the absolute maximum and absolute minimum values of f over $[0, 3]$.

Exercise 3 [3 points]

Show that the equation $x^3 + e^x = 0$ has exactly one real root.