

Quiz 1

MATH 102, CALCULUS II

PREPARED BY DR. KAREEM ELGINDY

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Student Name: Student ID:

Section #:

Justify your answers to the following questions.

Question 1. [4 marks] Find the exact area of the region that lies under the graph of $f(x) = x$ between $x = 0$ and $x = 2$ using the Riemann sum, taking the sample points to be right endpoints. *(No need to graph the function and the area region.)*

Question 2. [3 marks] Find the derivative of $\int_1^{x^2} \sqrt{1+t^2} dt$ with respect to x .