

Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_

## Quiz 4

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

**Question 1.** §4.6 #8 (10 marks)

Use the Trapezoidal Rule and Simpson's Rule to approximate the value of the definite integral for  $n = 4$ . Round your answer to four decimal places and compare the results with the exact value of the definite integral.

$$\int_0^2 x\sqrt{x^2 + 1} \, dx$$