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. *(5 marks)* §5.3 #25 Evaluate the integral.

$$\int_0^{\pi/3} \frac{\sin\theta + \sin\theta \tan^2\theta}{\sec^2\theta}\, d\theta$$

Question 2. *(5 marks)* §5.4 #13 Use the Second Fundamental Theorem of Calculus to find the derivative of the function.

$$g(x) = \int_{2x}^{3x} \frac{u^2 - 1}{u^2 + 1}\, du$$