Name: _____

Student ID: _____

Quiz 5

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 #19 Evaluate the integral.

$$\int_{1/2}^{\sqrt{3}/2} \frac{6}{\sqrt{1-t^2}}\, dx$$

Question 2. *(5 marks)* §5.5 #62 If f is continuous and $\int_0^9 f(x)\, dx = 4$, find $\int_0^3 x f(x^2)\, dx$.

Question 3. *(5 marks)* §6.1 #20 Evaluate the integral.

$$\int_1^{\sqrt{3}} \arctan\left(\frac{1}{x}\right) \, dx$$