Name: _____

Student ID: _____

Quiz 7

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)* §6.3 #40 Make a substitution to express the integrand as a rational function and then evaluate the integral.

$$\int \frac{\sin x}{\cos^2 x - 3\cos x} \, dx$$

Question 2. *(5 marks)* §6.6 #25 Determine whether the integral is convergent or divergent. Evaluate if it convergent.

$$\int_{-2}^{14} \frac{dx}{\sqrt[4]{x+2}}$$