

Name: _____
Student ID: _____

Quiz 4

This quiz is graded out of 15 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) §5.2 #21 Use the form of the definition of the integral given to evaluate the integral.

$$\int_1^4 (x^2 - 4x + 2) dx$$

Question 2. (5 marks) §5.3 #29 Evaluate the integral.

$$\int_{-1}^2 (x - 2|x|) dx$$

Question 3. (5 marks) §5.4 #19

- (2 marks) Find the average value of f on the given interval.
- (2 marks) Find c such that $f_{ave} = f(c)$.
- (1 mark) Sketch the graph of f and a rectangle whose area is the same as the area under the graph of f .
 $f(x) = (x - 3)^2, [2, 5]$