

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 #28 Evaluate the integral.

$$\int_0^2 (|2x - 1|) dx$$

**Question 2.** §5.4 #20

- (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  $f$ .

$$f(x) = (x - 3)^2, \quad [2, 5]$$