Name: _____

Student ID: _____

Quiz 3

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. §4.2#47 (4 marks)
Use the limit process to find the area of the region between the graph of the function $f(x) = -2x + 3$ and the x-axis over the interval $[0, 1]$:

Question 2. §5.7#13 (3 marks)
Integrate the following definite integral:

$$\int_{-1}^{1} (t^3 - 9t)\, dx$$

Question 3. §4.3#33,34,35 (3 marks)
Given $\int_{2}^{4} x^3\, dx = 60$ and $\int_{2}^{4} x\, dx = 6$ evaluate the following definite integrals:

1.
$$\int_{4}^{2} x\, dx$$

2.
$$\int_{2}^{2} x^3\, dx$$

3.
$$\int_{2}^{4} 4x\, dx$$