

Name : _____

140 - Calculus I: Test 4 Extra Credit

DIRECTIONS: Show all work! There is a total of 5 points which will be added to Test 4.

1. (3 points) Compute the following definite integral [Hint: use u-substitution]

$$\int_0^1 (x - 3)(x^2 - 6x + 9)^3 dx$$

2. (2 points) Give an **left hand sum** approximation to the definite integral of $f(x) = x^3$ from $x=-2$ to $x=1$ using 6 rectangles. [Must show work for credit]