

## 236 Quiz 1

January 18, 2011

Name \_\_\_\_\_

By printing my name I pledge to uphold the Honor Code.

*Work individually. You may use your Notebooks but no loose papers, photocopies, books, calculators, cell phones, or other resources. To get full credit you must clearly and concisely show/explain/justify your work, so please think about what you write and how you write it.*

1. Sketch the graph of some function  $f(x)$  on  $[2, 5]$  for which SIMP(6) is an under-approximation for  $\int_a^b f(x) dx$ . (Note  $n = 6$  means that  $\frac{6}{2} = 3$  parabolas are involved.)

2. Find  $\lim_{x \rightarrow \infty} \frac{2}{e^{-x} + 2}$ . (this is from the WebWork assignment)

3. Find  $\int_2^4 \frac{e^{2x}}{5 - e^{2x}} dx$ . (you need not simplify the number)