

Math 152 Quiz #5
February 9, 2010

Name: _____

Show all work on a separate sheet. Put a box around your final answer. No calculators are permitted.

1. (5 pts.) Let R = the region bounded by $y = e^{5x}$, and the x -axis for $0 \leq x \leq 2$.

Find the volume of the solid obtained by revolving R about the y -axis using cylindrical shells.

2. (3 pts.) A crazy particle moves along a straight path with velocity $v(t) = 2t^2(8 - t^3)^9$ in feet/second at t seconds. Find the average velocity from time 0 to time 2.

3. (2 pts.) $\int x^7 \cdot \ln x \, dx$