MATH 141 (Section 5 & 6)
Prof. Meade

Quiz 11
November 147, 2013

University of South Carolina
Fall 2013

Name: ___Key___

Section: 005 / 006 (circle one)

1. (5 points) Speedometer readings for a motorcycle at 12-second intervals are given in the table.

t (s)	0	12	24	36	48	60
v (ft/s)	30	28	25	22	24	27

Estimate the distance traveled by the motorcycle during this time period using the velocities at the beginning of the time intervals.

$$V \approx 30 \cdot 12 + 28 \cdot 12 + 25 \cdot 12 + 22 \cdot 12 + 24 \cdot 12$$
$$= (30 + 28 + 25 + 22 + 24) \cdot 12$$
$$= 129 \cdot 12$$
$$= 1548 \text{ ft.}$$

2. (5 points) Express the limit $\lim\limits_{n \to \infty} \sum\limits_{i=1}^{n} x_i \ln(1 + x_i)\, \Delta x$ as a definite integral on the interval $[2, 6]$.

$$= \int_{2}^{6} x \ln(1 + x)\, dx$$