Mathematics 122

Quiz #30 Name: Key

You must show your work to get full credit.

The following gives the rate of speed, v, of a braking car t seconds after the breaks are hit.

t (in seconds)	0	2	4	6	8	10
P (in feet/second)	50	48	38	22	11	0

(1) Give an upper bound for the distance traveled during the 10 seconds after the brakes are hit.

Upper bound: 338

2 pts $2(50+48+38+22+11) = 338$

-1 for reversing these two

(2) Give an upper bound for the distance traveled during this 10 seconds.

2 pts $2(48+38+22+11+0) = 238$

Lower bound: 238

(3) Give a "best guess" ad the distance traveled during these 10 seconds.

1 pt

Best Guess: 288

Average of upper and lower bounds

$$= \frac{338+238}{2} = 288$$