

Quiz 7 Calculus 1 4/8/2006

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. Jon decides to get involved in go-cart drag racing. The table below shows speed readings for his test run (up until the 6 second mark, when the cart exploded spectacularly). Estimate the total distance the cart traveled before exploding using
- a. Velocities at the beginning of each time interval.
 - b. Velocities at the end of each time interval.

t (seconds)	0	2	4	6
v (feet/second)	20	30	40	50

2. Jon starts an E-bay business selling pirated DVDs. Data from court records on his revenue rates (in dollars per day) t days after his first sales are given on the table below. After 40 days, federal officers show up with a warrant and drag Jon off to prison. Find upper and lower estimates for the total revenue generated by Jon's enterprise during the 40 days of operation.

t (days)	0	10	20	30	40
r (\$/day)	100	200	140	250	210