

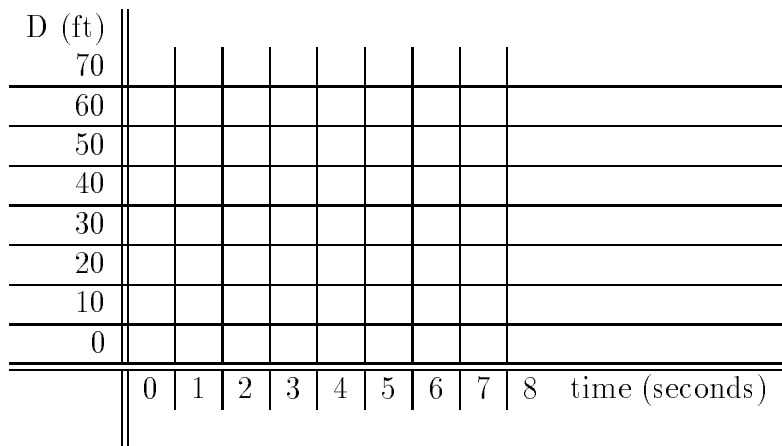
Average velocity, instantaneous velocity, and slope.

1. Suppose from 8:00 AM to 9:00 AM you travelled 70 miles. What was your average velocity for this trip? _____
2. What was your exact velocity at 8:10 AM? _____
3. What if in addition you knew that from 8:09 to 8:15 you travelled 4 miles? What would you guess your exact velocity was at 8:10 AM? _____
4. Suppose we in fact had the following table:

Time	Distance
8:00	0
8:09:00	7
8:09:58	8
8:10:00	8.03
8:15	11
9:00	70

5. Using this data, what would you estimate for the exact velocity at 8:10:00? _____

Suppose the graph of the distance travelled by a bicyclist as a function of time looks as follows.



6. Estimate the velocity of the bicyclist at time $t = 5$?
7. Estimate the slope of the graph at time $t = 5$?
8. During which time intervals is the velocity constant?
9. During which time intervals is the velocity increasing?
10. During which time intervals is the velocity decreasing?
11. Estimate how far the bicyclist will travel from during the time interval $[8, 10]$.

ANNOUNCEMENTS

Homework, due Wednesday, 9/30/98:
 CiC (Calculus in Context), section 3.1 : 1-7.