***Name:*_____**

***Period:*_____**

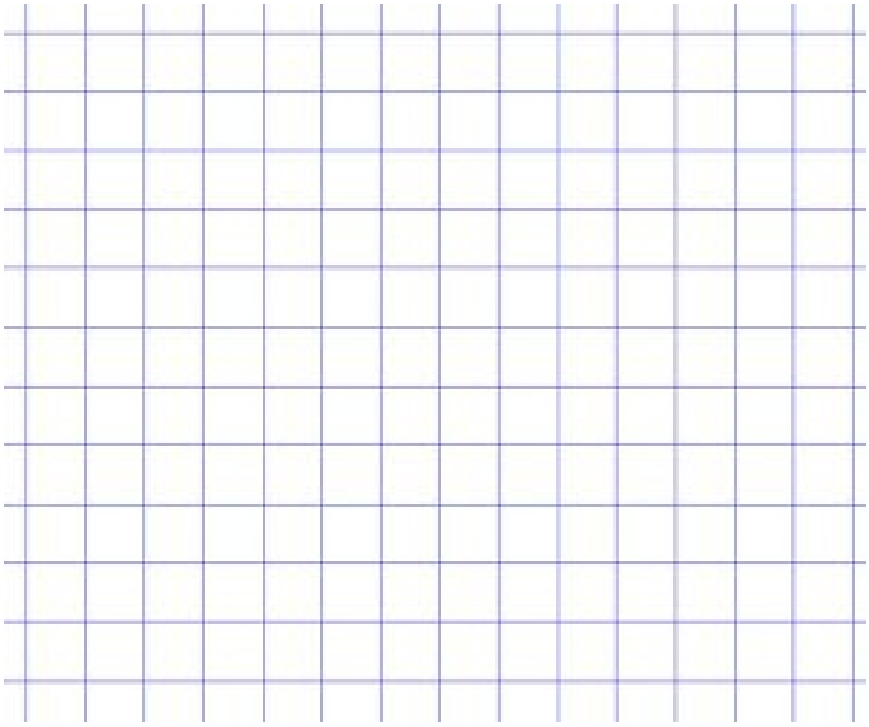
***Date:*_____**

Chapter 8: Homework: Graphing speed to see acceleration

Problem: Here is a data chart of the times you recorded at your last board slalom practice session. Your board coach wants you to graph these up and tell him what is going on in your run.

Time (sec)	0	5	10	15	20	25	30	35	40	45	50
Velocity (m/s)	0	2	4	8	12	12	10	8	6	5	4

Meters / second



Time in Seconds

1. What is your top speed?

_____

2. How long did it take you to reach your top speed?

_____

3. Calculate your average acceleration. (End speed – start speed)/ (time needed for change)

4. Calculate your maximum acceleration. (End speed – start speed)/ (time needed for change)

5. Is there any time where your speed wasn't changing? If so when?

6. At what point(how many seconds) do you begin to slow down

7. What is your average "deceleration"? (End speed – start speed)/ (time needed for change)

8. What is your speed at the end of the run (last entry on data table)?

8.) Did you accelerate or decelerate more rapidly? (Which had the steeper curve on the graph?)

9.) What are the proper units for speed or velocity?

10.) What are the proper units for accelerations?

Extra Credit (up to 15 points): What is your maximum speed down the snowboard course in miles per hour?

Stuff you should know: 1m = 3.2808 feet; 1 mile = 5280 feet;
60 secs = 1 min; 60 min = 1 hour.

Show your work!