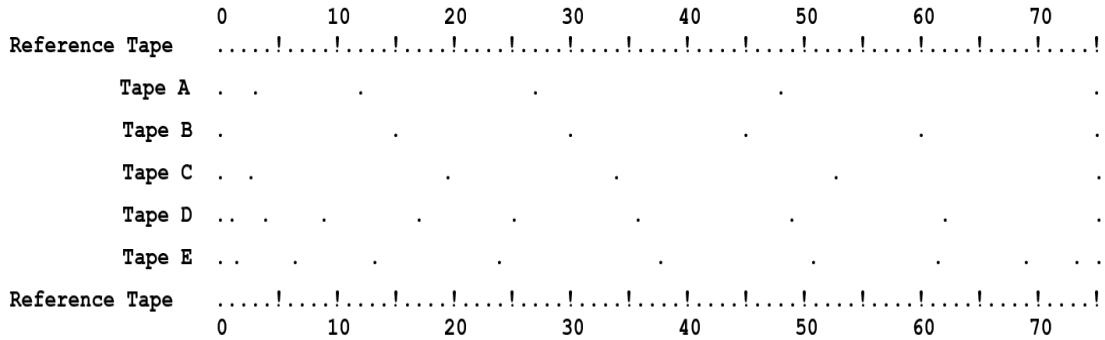


Below are the tapes (reduced in size) from a recording timer which records one dot per second. The reference tape is that of an object moving at a constant velocity of one centimeter per second and is to be used for reference and measuring. The same tape is repeated last to help insure accuracy. The motion is from left to right. Be sure to measure distance using the reference tapes to the nearest centimeter.



Tape A

- A. Determine the location of each point.
 - 1. Plot the position (cm) vs time (sec).
 - 2. Identify the type of motion. Record this by the graph.
- B. Measure and record the distance between each pair of dots.
 - 1. Divide each by the time (1 sec). Record this as change in velocity.
 - 2. Plot the change in velocity (cm/sec) vs time (sec).
- C. Calculate and record the difference between each change in velocity.
 - 1. Divide this distance (cm/sec) by the time for the change (1 sec) and record.
 - 2. Plot change in change in velocity (cm/sec²) vs time (sec)
- D. Write a conclusion about what have learned from the various graphs.

- Tape B Complete steps A, B, and D.
- Tape C Complete steps A, B, C, and D.
- Tape D Complete steps A, B, C, and D.
- Tape E Complete steps A, B, C, and D.

- Tape A: 0, 3, 12, 27, 48, 75
- Tape B: 0, 15, 30, 45, 60, 75
- Tape C: 0, 2.5, 9, 19.5, 34, 52.5, 75
- Tape D: 0, 1, 4, 9, 17, 25, 36, 49, 62, 75
- Tape E: 0, 1.5, 6, 13.5, 24, 37.5, 51, 61.5, 69, 73.5, 75