**Measuring Speed and Velocity**

Mostly people measure the speed of an object over a known distance with timing devices like stopwatches. This is what occurs in athletic events and many races. Scientist do the same, but can also use ticker timers in a lab, or video analysis outside the lab. Many student experiments use ticker timers to calculate and analyse speed.

**A ticker timer set up**

A ticker timer puts a dot on a strip of paper every 0.02 seconds (that’s a rate of 5 dots every 0.1 of a second, or 50 dots a second). If the paper was attached to an object, and that object moved, the distance between the dots tell us how far the paper has moved.

A quick inspection of a ticker timer tape can tell you quite a lot of information about the speed of an object.

fast

constant speed

Slow

constant speed

accelerating

Slow

constant speed

Slow

constant speed

CFU Question 1 – Use the words “constant speed”, “accelerating”, and “decelerating” to describe the motion indicated on each of the tapes below.

|  |  |
| --- | --- |
| a. |  |
| b. |  |
| c. |  |
| d. |  |

CFU Question 2 – the pic below is part of a ticker timer tape. Calculate the speed shown on the tape

