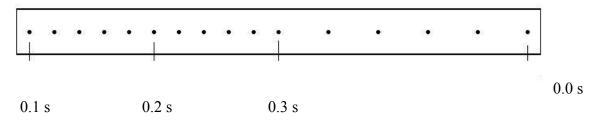
Worksheet (Week 3) - Ticker Timer Tape analysis

1. While conducting an experiment to investigate gravitational acceleration, some Physics students obtained the following ticker tape using a 50 Hz ticker timer connected to a trolley.

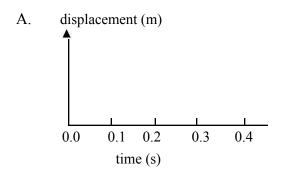
Diagram is not drawn to scale.

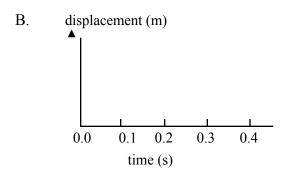
5.3
cm

- (i) How does the ticker tape above show that the trolley is accelerating?
- (ii) Calculate the acceleration of the trolley in m/s².
- 2. A group of physics students attached a ticker timer tape to a toy remote controlled car. Part of the tape was taken for analysis and is shown below.



Which of the displacement - time graphs shown below **best** represents this section of the tape?





C. displacement (m) D. displacement (m)

0.0 0.1 0.2 0.3 0.4 time (s)

