SPH 4C

**ARE YOU READY?**

1. Figure 1 shows the motion of a car along a straight road. The images are taken at time intervals of 1.0 s. Describe the motion of the car using your vocabulary of motion.



1. The motion of three cars, L, M, and N are illustrated by the graphs shown below. Compare the times of travel and average speeds of the three cars.



1. Describe the sources of error you would encounter when measuring the length of this page with a metre stick.
2. You are asked to calculate the speed of a jogger that runs beside you along a straight track. Describe how you would perform an experiment to calculate the required quantity.
3. Describe your pen qualitatively and quantitatively.
4. Draw three loonie-sized circles so they are spread out on the back of this piece of paper. Within each circle, write one of these topics: transportation safety, space exploration, and sports applications. For the topic, write around the outside of the circle the physics concepts and other facts that you already know about the topic.
5. Suppose you are asked to test a new design for an artificial human arm. Describe three tasks you think the arm should be able to perform.