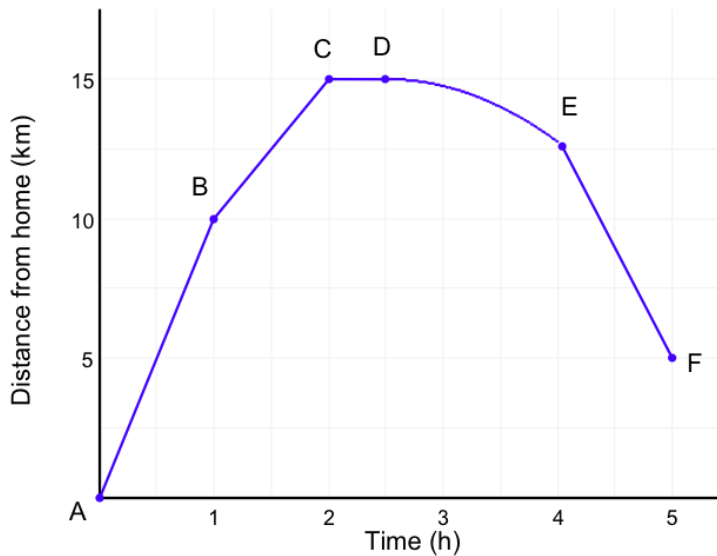

5.5.2: Quiz

Rate of Change and Story Graphs

Name: _____

1. Devin went for a bicycle ride. The graph below shows his trip.
Note: Distance is the number of kilometres from home.



- (4) a) Calculate his speed during the first hour (AB) and the second hour (BC).
Show your work.
- (2) b) How does the speed between A and B compare with the speed between B and C?
- (2) c) Explain what segment CD tells you about Devin's motion.
- (2) d) Which section of the graph shows that Devin was changing speeds? Explain.
- (2) e) What information can you determine from segment EF?

5.5.2: Quiz (continued)

- (10) 2. Sketch the graph that is described in each story.

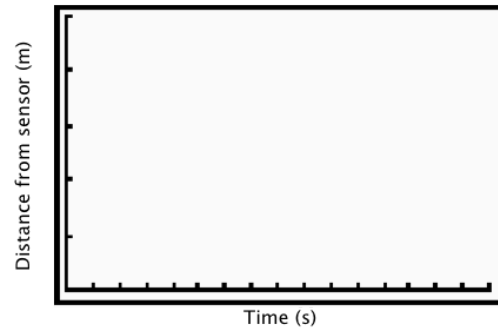
a) Begin 5 metres from the sensor.

Walk towards the sensor for 6 seconds at a steady rate of 1 metre in 2 seconds.

Stop for 5 seconds.

Run back to your starting position at a steady rate of 1 metre per second.

Stop.



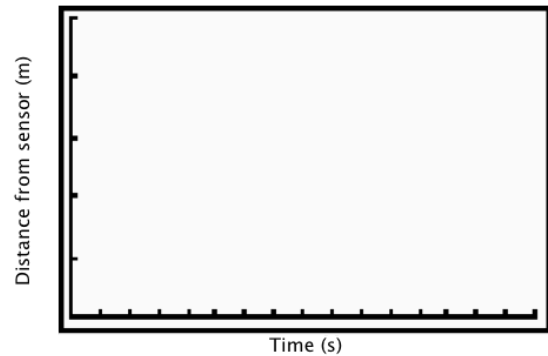
b) Begin at the sensor.
Walk very slowly at a steady rate away from the sensor for 3 seconds.

Increase your speed and walk at this new speed for 3 seconds.

Stop for 3 seconds.

Walk very slowly at a steady rate towards the sensor for 3 seconds.

Gradually increase your speed to a run and go back to the sensor.



- (3) 3. If a wheelchair ramp has a rate of change (incline) greater than 0.1, then it is considered unsafe.

Determine whether or not each of the following ramps is safe.
Show your work and explain your reasoning.

