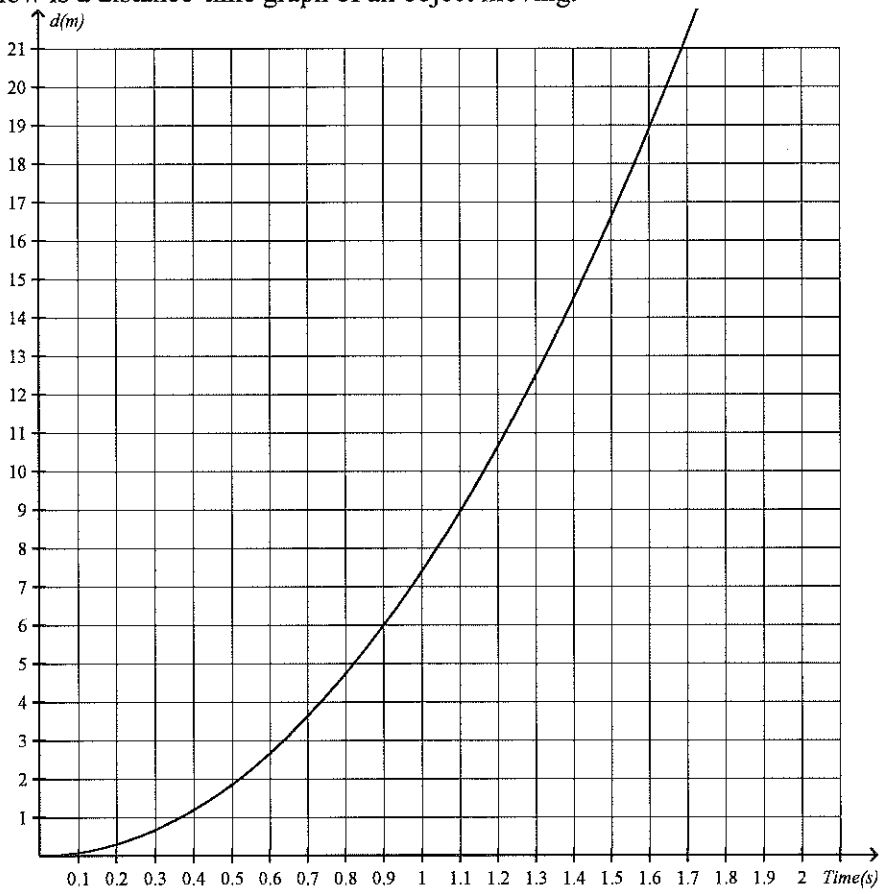
Name: _____ Class: _____ Date: _____ ID: A

Physics 11 - Constant Velocity

Short Answer

1. Below is a distance-time graph of an object moving.



a)Determine the instantaneous velocity at time 1.2s.

ANSWER:

_____

b) How far has the object travelled from 1s to 1.6s?

ANSWER:

_____

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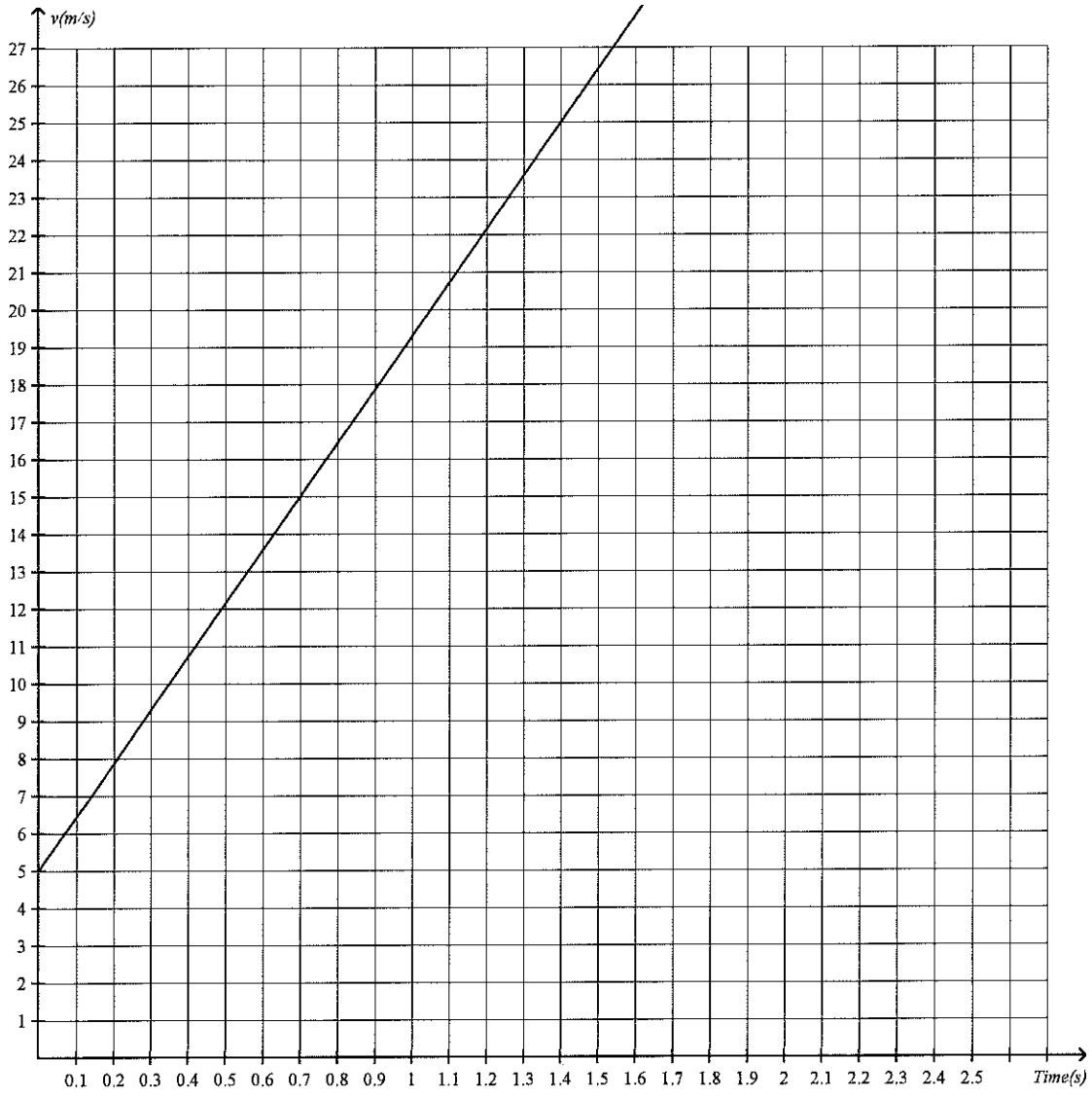
2. Below is a velocity-time graph of a moving object.



From the graph...

a) Determine the distance travelled up to time 1.2s.

ANSWER: _____

b) Determine the acceleration of the object.

ANSWER: _____

3. Dave leaves school at a velocity of 3.5 km/h. After travelling for 100 minutes, Dave's friend races after Dave at 8 km/h.
   a) How long does it take for the friend to catch up to Dave?

ANSWER: _____

   b) How far from school are they when Dave is caught?

ANSWER: _____

4. Victoria is 347 km from View Royal. Train A leaves Victoria at a velocity of 89 km/h. at 6 am. and train B leaves View Royal at a velocity of 75.5 km/h also at 6 am.
   a) At what time do they pass each other (to the nearest minute)?

ANSWER: _____

   b) How far from Victoria are both trains when they pass each other?

ANSWER: _____

5. A car starts from rest and travels 300 km in 8 hrs. What is the average velocity?

ANSWER: _____

6. You are going on a 259 km road trip, if you start from rest and travel 60 km/h for 2.5 hours, then stop for a flat tire for 28 minutes, how fast do you need to drive for if you are to have an average velocity of 55 km/h for the entire trip?

ANSWER: _____

7. You are going on a road trip. First you travel 75 km/h for 2.2 hours, then stop for a lunch break for 55 minutes. Then you drive again for 148km at 87km/h. What is your average velocity for the whole trip?

ANSWER: _____