

Name:

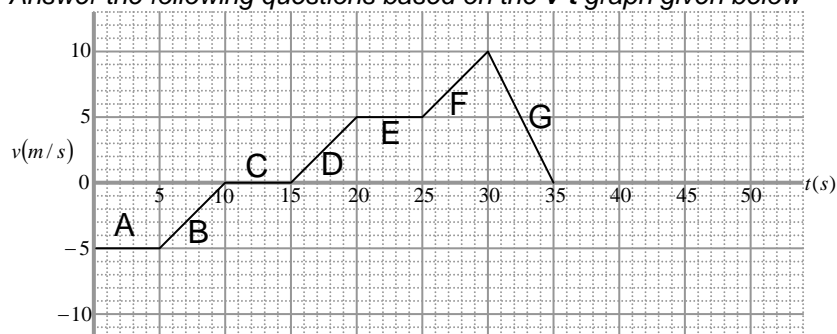
Tuesday, October 16, 2012

Ku:

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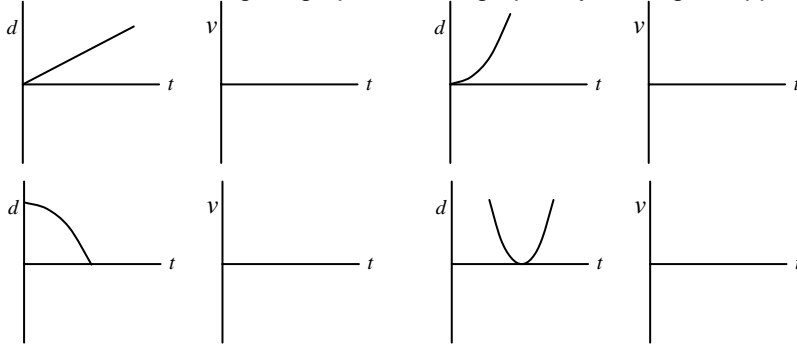
Com:

Answer the following questions based on the $v-t$ graph given below



- List the time intervals (e.g. A, B, C...) where the object is: **[ku:7]**
 - moving with constant speed _____
 - at rest _____
 - experiencing positive acceleration _____
 - experiencing negative acceleration _____
- Calculate the acceleration of each interval where the acceleration is **not zero**. Label your calculations appropriately. **Show all your work.** **[ku:8]**
- Determine the distance traveled during each section. Label your calculations appropriately. **Show all your work.** **[ku:9]**

4. Convert the following d-t graphs into v-t graphs by making an approximate **sketch** of the shape **[ku: 4]**



Answer the following using the kinematics formulas (**use GRFS**)

5. A car traveling at 108km/h stops in 20m. Determine the rate of acceleration of the car. (express your answer in m/s^2) **[ku:4]**
6. Two runners are heading toward each other on a track. The first runner is moving at 3.00m/s while the other is moving at 4.00 m/s. If the runners are separated by 100.0m determine when and where they will meet. **[ku:6]**

7. A ball is kicked horizontally off a cliff that is 30.0m above the ground. If the ball's horizontal speed is 10m/s determine **[ku:6]**
- the time it takes to land
 - the distance the ball lands away from the base of the cliff