practice

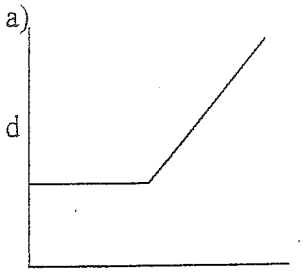
Jan 31, 2001

Physics 11 Quiz – Chapter 3

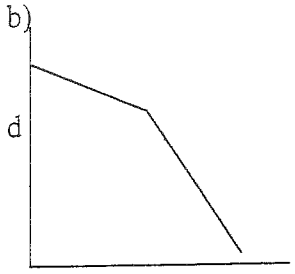
Name: _____ ~~Block: B~~

1. Sketch the velocity vs time graph that corresponds to each of the following position vs time graphs.

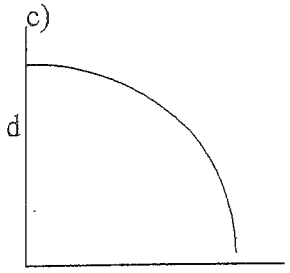
a)

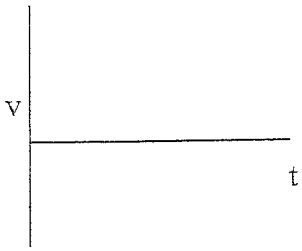


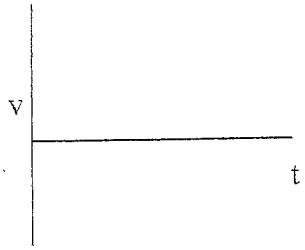
b)

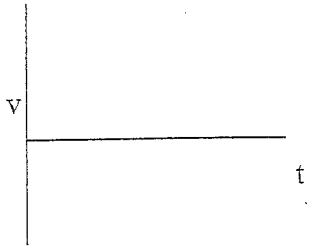


c)

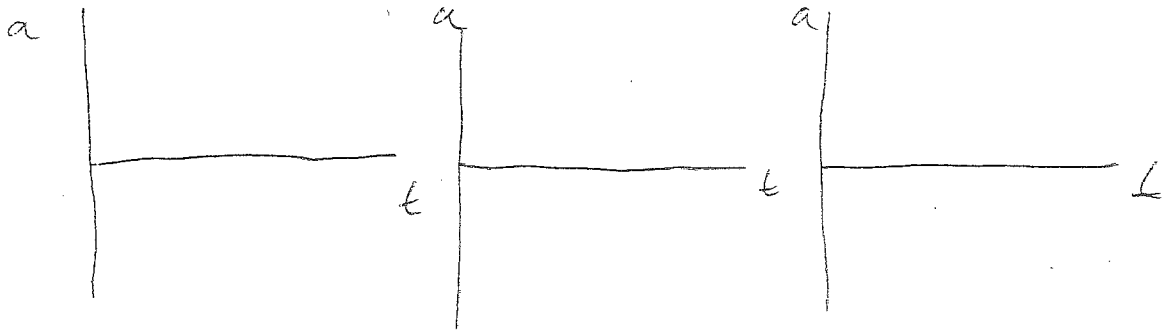








sketch the acceleration vs time graph for each.



(2)

2. A man drives North for one hour at a speed of 15.0 m/s, and then turns around and drives towards the South at the same speed for 20.0 minutes.

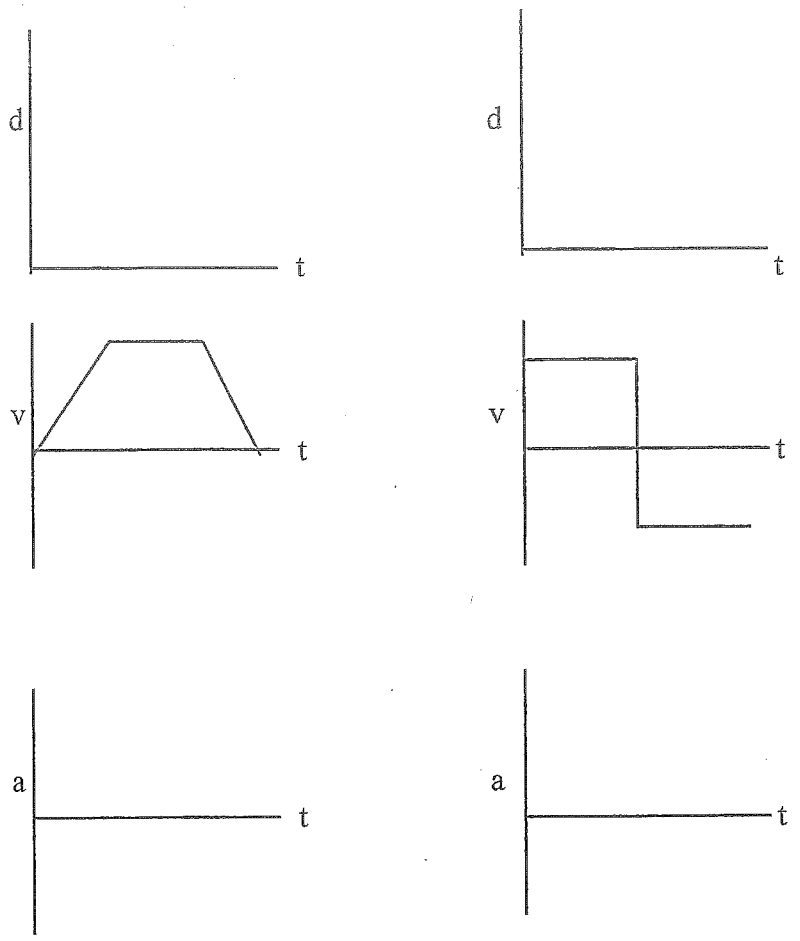
a) How far (distance) has he driven?

b) What was his final displacement?

c) What was his average velocity?

3. A bus travels through the city for 2.0 hours at 50.0 km/h, and then for 30.0 minutes on the highway at 90.0 km/h. What was the average velocity of the bus?

8. Complete the d-t and a-t graphs corresponding to the v-t graphs shown below.



12. A baseball was thrown upwards from the edge of a cliff with a speed of 26.0 m/s.

a) To what maximum height above the cliff did the ball fly?

b) A very strong bird caught the ball in its beak when the ball was on its way down, 15.0 m below the level of the cliff. What was the velocity of the ball the instant before the bird caught it?

c) How long after it was thrown was the ball caught by the bird?

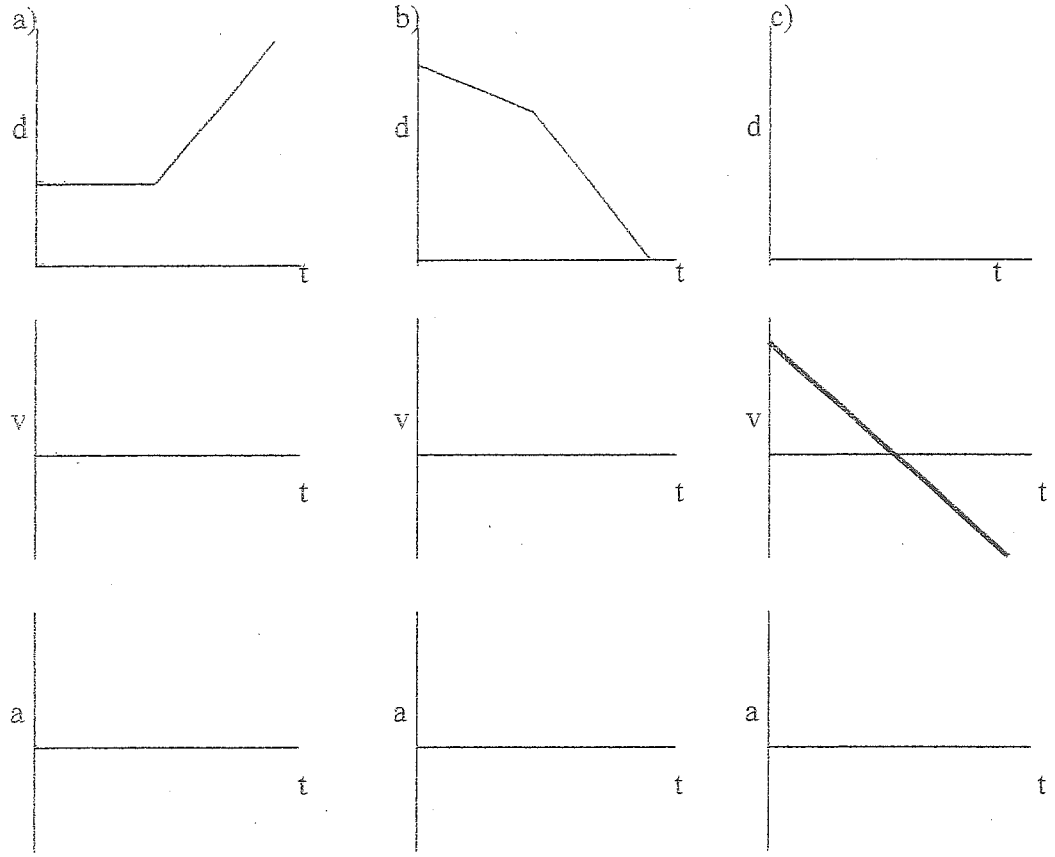
Practice

(4)

Physics 11 H Kinematics ~~Quiz~~

Name: _____ Block: _____

1. For each of the graphs shown below, sketch the other corresponding graphs (position vs time, velocity vs time, and acceleration vs time).



2. A woman walks West for 30.0 minutes at a speed of 3.0 m/s, and then turns around and jogs toward the East for 45.0 minutes, at 5.0m/s.

   a. What distance did she travel?

   b. What was her displacement when she reached the end of her trip?

   c. Calculate her average speed.

   d. Calculate her average velocity.

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3. A car moving at 60.0 km/h comes to a rest in a time of 37.0 s. How far does it travel in that time?

4. Police found skid marks 65.0 m long on a highway showing where a car made an emergency stop.
   a. If the car was moving at 25.0 m/s at the instant the brakes were engaged, what was its acceleration while stopping?

   b. How long did it take to stop (time)?

5. A 15.0 kg ball dropped off the edge of a cliff hits the ground with a speed of 45.0 m/s.
   a. How long was the ball in the air?

   b. How high was the cliff?

6. A helicopter, 45.0m above the ground, is moving up at 7.50 m/s what a child drops a stone out the window. How long is the stone in the air before it hits the ground?