

- 7. A frictionless air track is tilted at an angle of 2.5° .
 - a) At what rate will the glider accelerate down the sloped air track?
 - b) How long will the glider take to travel 1.5 m along the track, if its initial velocity is zero?
- 8. A car traveled up a hill at constant speed of 10.0 m/s and then returned down the hill at 20.0 m/s. If the time to turn around is ignored, what was the average speed for the trip?
- 9. A ball is thrown straight down with a speed of 50.0 m/s. What would be its' speed after 2.00 seconds?
- 10. An object moving with uniform acceleration changes its speed from 25 m/s to 45 m/s in 5.0 s. What is the acceleration?
- 11. How long would it take a truck to uniformly accelerate from 10.0 m/s to 30.0 m/s over a distance of 80.0 m?
- 12. A late passenger, sprinting at 8.0 m/s, is 30.0 m away from the rear end of a train when it starts out of the station with uniform acceleration of 1.0 m/s^2 . Can the passenger catch the train if the platform is long enough?

13. Use the following velocity vs time graph to answer the questions below:

