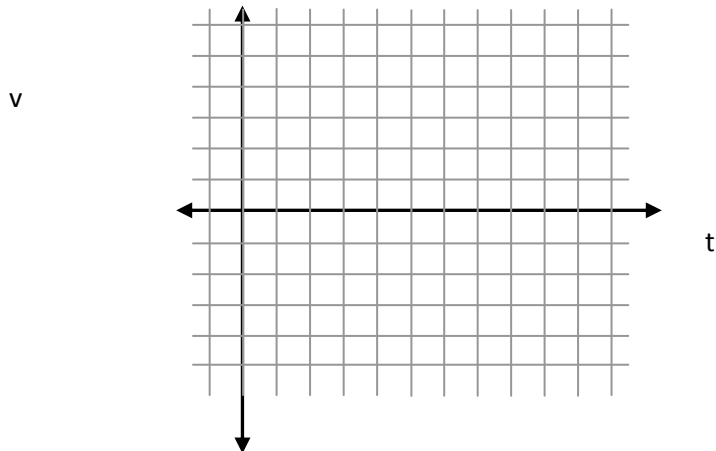


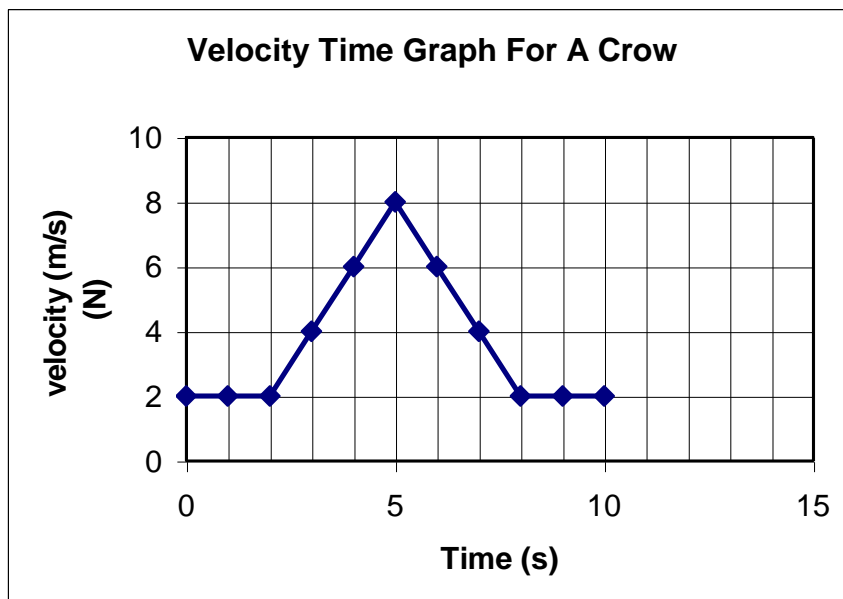
Physics 2204 Worksheet 3B

1. Sketch a velocity-time graph showing these stages in the trip.
 - A. The passengers sat on a bench waiting for the boat to arrive.
 - B. They walk to the boat at a constant speed when it arrives.
 - C. The boat speeds up with a constant acceleration.
 - D. The boat reaches top speed and moves toward an iceberg.
 - E. The boat slows down and stops near the iceberg.
 - F. The boat turns around and travels back to the port at a constant speed
 - G. The boat slows down and stops near the boat terminal

Note that this graph is a sketch – there is no need to include precise numbers.



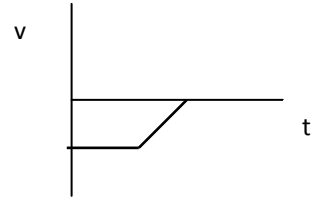
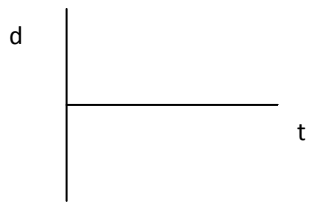
2. Wile E Coyote is traveling at 2.0 m/s [E] when he spies the roadrunner down the road. He ignites his jet pack that gives him an acceleration boost of 95.5 m/s^2 [E]. What is his velocity after 3.5s?
3. Use the following graph to answer the questions below.



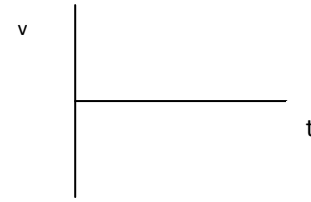
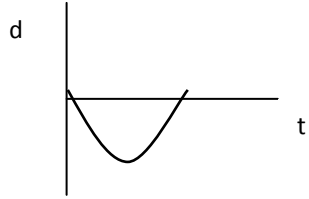
- (a) What is the acceleration of the object from 5 s to 8 s?
- (b) What is the crow's displacement after 5.0s?
- (c) What is the object's velocity at 6 s?

4. Sketch the corresponding displacement-time or velocity-time graph for each of the following:

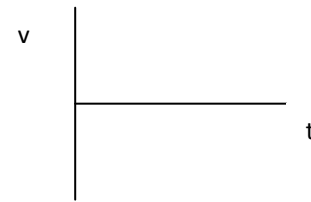
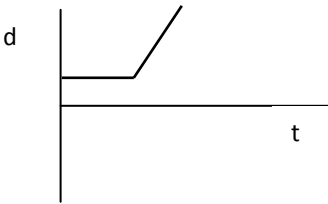
a)



b)



c)



5. A car travelling in a straight line has an acceleration of 2.0 m/s^2 and reaches a speed of 30 m/s in a time of 10 s . What was the initial speed of the car?