

Name: _____

Score:

Physics Homework #7

Acceleration

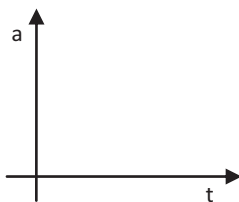
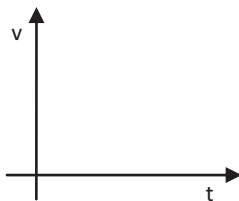
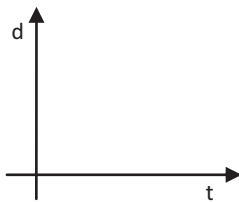
Show all work – multiple choice answers MUST be proven for full credit!

1. A car begins from rest and accelerates at a rate of $+3.0$ meters per second² for 5.0 seconds.

- a. Determine the car's final speed.

- b. Calculate the car's average speed during its trip.

- c. Sketch graphs for the car's displacement, velocity, and acceleration vs. time. Include as many details as possible in your sketches.



2. A truck begins with a velocity of $20.$ meters per second east and changes its velocity to 5.0 meters per second east in 10.0 seconds.

- a. Determine the truck's rate of acceleration.

- b. What is the direction of the truck's acceleration? _____

- c. Sketch graphs for the truck's displacement, velocity, and acceleration vs. time. Include as many details as possible in your sketches.

