
PHYS 1110 Group Work Sheet 1
Graphing Position, Velocity, and Acceleration

With your group, discuss how to answer these questions and write your group answer in the space provided.

1. Make a position-time graph to describe the tortoise-hare race.



2. Make a velocity-time graph to describe the tortoise-hare race. Use the same horizontal (time axis) scale as the position-time graph.



3. A car waits at a stop light for 5.0 s. The light turns green, so the car then steadily accelerates to 15.0 m/s over 5.0 s, then cruises at a constant speed of 15.0 m/s.

- a. Complete the velocity-time graph for the car (**middle** graph).
- b. Complete the acceleration-time graph for the car (**bottom** graph).
- c. Complete the position-time graph for the car (**top** graph).



Be quantitative for velocity and acceleration! Mark numbers and units on the axes!