

Collisions II Prelab

Due start of class, week of Oct 21

Name:_____ Section:_____

1. A car is cruising down the highway at a speed of 30 m/s. The driver puts the car in neutral and lets it coast to a stop. He finds the time to stop is 75 s. Assuming the force of friction is constant, what is the magnitude of the total frictional force? Assume the car weighs 800 kg.
2. Sketch the curve of velocity vs. time during the stop. On the same graph, sketch velocity vs. time if the force of friction were (a) proportional to velocity and (b) proportional to velocity squared.