Collisions I Prelab
Due start of class, week of Oct 15

Name:____ Section:____________

1. In the good old days the dashboard of a car was made of good solid steel. In an accident an unfortunate passenger's head (mass 5 kg) hits the dash at a speed of 30 mph. Assume that the steel bends in 5 mm while stopping the head and that the force is constant. What is the total impulse applied to the head? What is the magnitude of the force?

2. In a nice new 2002 model-year car, an airbag pops out and stops the head in 20 cm. Again, what is the total impulse and force? What is the advantage of the airbag?