Q1 -   Answer = c
Q2 - Problem A - Last name A-K

A 70 kg passenger in a car going 40 mph (18 m/s) crashes into a tree. If it takes the car 0.125 s to stop, what is the average force on the passenger?
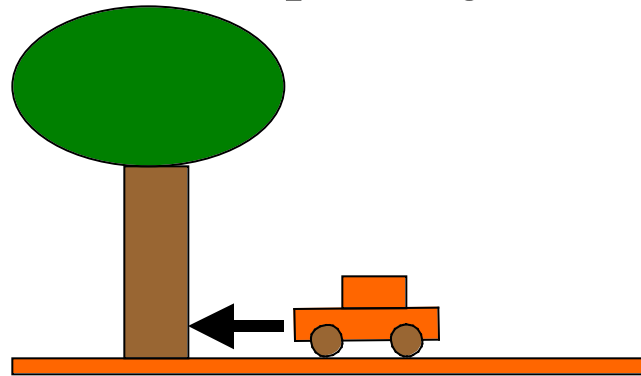
A. 144 N

B. 560 N

C. 1260 N

D. 2800 N

E. 10^4 N   F = Δp/Δt = (70x18)/0.125 = 10080 N

Q1 - Answer = c
Q2 - Problem B - Last Name L-Z

- An 80 kg passenger is in a car at rest that is struck in the rear by another car. As a result of the collision, which lasts 0.15 s, the struck car moves off at 11 m/s. What was the average force on the passenger?

A. 5867 N $F = Dp/Dt = (80 \times 11)/0.15 = 5867$ N

B. 4840 N

C. 132 N

D. 12 N

E. 1 N