Momentum HW 2 (impulse) (8496664)

Due: Wed Jan 13 2016 09:00 AM PST

Question | 1 | 2 | 3 |

---

1.   Question Details   OSColPhys1 8.2.008. [3355120]   _

A car moving at 25 m/s crashes into a tree and stops in 0.35 s. Calculate the force the seat belt exerts on a passenger in the car to bring him to a halt. The mass of the passenger is 92 kg. (Enter the magnitude.)

[   ] N

---

2.   Question Details   OSColPhys1 8.2.016. [3355125]   _

Calculate the final speed of a 112-kg rugby player who is initially running at 7.75 m/s but collides head-on with a padded goalpost and experiences a backward force of 1.65×10^4 N for 7.00×10^{-2} s.

[   ] m/s

---

3.   Question Details   OSColPhys1 8.5.031. [3463804]   _

A 0.230-kg billiard ball that is moving at 4.60 m/s strikes the bumper of a pool table and bounces straight back at 3.68 m/s (80% of its original speed). The collision lasts 0.0200 s. (Assume that the ball moves in the positive direction initially.)

(a) Calculate the average force exerted on the ball by the bumper. (Indicate the direction with the sign of your answer.)

[   ] N

(b) How much kinetic energy in joules is lost during the collision? (Enter the magnitude.)

[   ] J

(c) What percent of the original energy is left?

[   ] %

Assignment Details

Name (AID): **Momentum HW 2 (impulse) (8496664)**
Submissions Allowed: **10**
Category: **Homework**
Code:
Locked: **Yes**
Author: **Steinkamp, Alex (** asteinkamp@osd.wednet.edu **)**
Last Saved: **Jan 11, 2016 11:34 AM PST**
Group: **AP Phys 1**
Randomization: **Person**
Which graded: **Last**

Feedback Settings
Before due date
Question Score
Assignment Score
Publish Essay Scores
Question Part Score
Mark
Add Practice Button
Help/Hints
Response
Save Work
After due date
Question Score
Assignment Score
Publish Essay Scores
Key
Question Part Score
Solution
Mark
Add Practice Button
Help/Hints
Response