Note Taking Guide – Episode 601

Momentum -

Symbol _____   Equation _____   Unit _____

Problem Set #1: (1-2)

Impulse Equation: _____ = _____

          _____   change in _____

    An _____ is required to change the momentum of an object.
    A change in _____ creates an impulse.

A golfer follows through on a swing to increase the ball's _____ and make it travel farther.

$$F\ t = m\ \Delta v$$

Following through keeps the club head on the ball for a longer period of _____.
Since time and velocity are _____ proportional, increasing time of contact _____ velocity.

Answer using words and the impulse equation:
    Why does a batter stop the bat when bunting?

Which would do more damage- stopping a truck, moving at 60 mi/h, by running into:
   a brick wall?   a haystack?

$$F\ t = m\ \Delta v$$ $$F\ t = m\ \Delta v$$

The _____ and change in _____ of the truck are held constant. To
decrease force, the _____ it takes the truck to stop must be _____.

more examples of extending time to decrease force:

Physics Challenge: Which is more likely to break a window?
                          a. a rubber ball   b. a clay ball   c. neither
Use the impulse equation to explain:

Law of Conservation of Momentum:

system -
closed system -
isolated system -

Notes on Collisions:
elastic collisions -

inelastic collisions -

_____ is conserved in all types of collisions.

"Show What You Know" (on back)