PHYSICS
MOMENTUM AND IMPULSE

NAME: _____   DATE: __
Use your notes on momentum to select the right equation.
Show all work. NO WORK = NO CREDIT

1. What is the momentum of a 0.15 kg arrow that is traveling at 120 m/s?

2. How much impulse is applied by a 25 N force in 30 seconds?

3. How much impulse is required to change the velocity of a 2500 kg truck by 15 m/s?

4. What will be the change in velocity of a 850 kg car if an impulse of 50,000 N·s is applied to it?

5. A 50,000 kg train is rolling on its own down the track at 5 m/s. You grab the rope trailing behind it, and exert a stopping force of 2000 N. How long does it take to stop the train?

6. A 1,100 kg car is going at 22 m/s. What force is needed to stop it in 2.0 seconds?

7. A 28 N force acts on a 100 kg object for 5 seconds. How much will the velocity change?

8. It takes 12 seconds of a 75 N force to stop an object that was going 30 m/s. Find its mass.