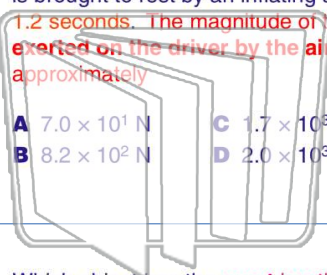




Name _____ Class _____ Date _____

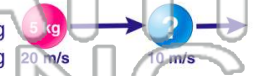
1 During a collision, an 84-kilogram driver of a car moving at 24 meters per second is brought to rest by an inflating air bag in 1.2 seconds. The magnitude of the force exerted on the driver by the air bag is approximately

- A 7.0×10^1 N
- B 8.2×10^2 N
- C 1.7×10^3 N
- D 2.0×10^3 N



2 Ball A of mass 5.0 kilograms moving at 20 meters per second collides with ball B of unknown mass moving at 10 meters per second in the same direction. After the collision, ball A moves at 10 meters per second and ball B at 15 meters per second, both still in the same direction. What is the mass of ball B?

- A 6.0 kg
- B 2.0 kg
- C 10 kg
- D 12 kg



3 Which object has the most inertia?
A a 0.001-kilogram bumblebee traveling at 2 meters per second

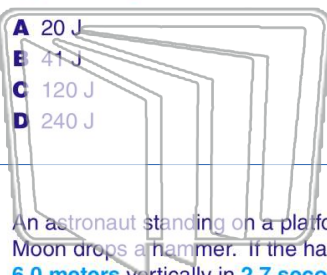
4 If the speed of a car is doubled, the kinetic energy of the car is
A quadrupled



5 **PREVIEW**
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7 constant speed of 6.0 meters per second. The kinetic energy of the block is approximately

- A 20 J
- B 41 J
- C 120 J
- D 240 J



- A electric charge
- B magnetic field strength
- C velocity
- D displacement

9 An astronaut standing on a platform on the Moon drops a hammer. If the hammer falls 6.0 meters vertically in 2.7 seconds, what is its acceleration?

- A 1.6 m/s^2
- B 2.2 m/s^2
- C 4.4 m/s^2
- D 9.8 m/s^2



10 A 2.00-kilogram object weighs 19.6 newtons on Earth. If the acceleration due to gravity on Mars is $3.71 \text{ meters per second}^2$, what is the object's mass on Mars?

- A 2.64 kg
- B 2.00 kg
- C 19.6 N
- D 7.42 N

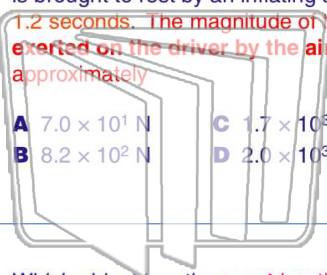




Name _____ Class _____ Date _____

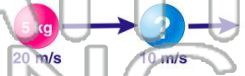
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