

## Momentum and Impulse

## **Practice Questions**

**Problem 1**: How can a Kungfu master split layers of bricks with the use of a bare hand?

For numbers 2 and 3: A 400-kg car has a speed of 40 m/s.

**Problem 2**: Find the speed a 650-kg UV express should have to attain the same momentum the car has.

**Problem 3**: Find the speed a 650-kg UV express should have to attain the same kinetic energy the car has.

For numbers 4 and 5: You are driving a 300-kg car at a speed of 45 m/s. You were sleepy and did not notice the stop sign immediately, so, unfortunately, you hit the rear end of another car with a mass of 420 kg. The collision caused both the cars to stick together.

**Problem 4**: Find the final velocity after collision.

**Problem 5**: What is the final momentum of the car?

