

**10** Which of the following is a statement of the principle of conservation of momentum?

**A** In an elastic collision momentum is constant.

**B** Momentum is the product of mass and velocity.

**C** The force acting on a body is proportional to its rate of change of momentum.

**D** The momentum of an isolated system is constant.

**11** A  $2.0\text{ kg}$  mass travelling at  $2.0\text{ m s}^{-1}$  on a frictionless surface collides head on with a stationary