

**8** A ball of mass  $0.040\text{ kg}$  hits a wall perpendicularly with speed of  $2.40\text{ m s}^{-1}$ .

The change in momentum of the ball due to the collision with the wall is  $0.120\text{ kg m s}^{-1}$ .

What is the rebound speed of the ball immediately after the collision?

A  $0.60\text{ ms}^{-1}$

B  $1.25\text{ ms}^{-1}$

C  $3.00\text{ ms}^{-1}$

D  $5.40\text{ ms}^{-1}$

**9** Two objects moving along a frictionless surface collide inelastically.