

- 9** A ball of mass  $2.0\text{ kg}$  travels horizontally with a speed of  $4.0\text{ m s}^{-1}$ . The ball collides with a wall and rebounds in the opposite direction with a speed of  $2.8\text{ m s}^{-1}$ . The time of the collision is  $150\text{ ms}$ .

What is the average force exerted on the wall?

**A**  $16\text{ N}$

**B**  $37\text{ N}$

**C**  $53\text{ N}$

**D**  $91\text{ N}$