

**7** A snooker ball has a mass of 200 g. It hits the cushion of a snooker table and rebounds along its original path.

The ball arrives at the cushion with a speed of  $14.0\text{ ms}^{-1}$  and then leaves it with a speed of  $7.0\text{ ms}^{-1}$ . The ball and the cushion are in contact for a time of 0.60 s.

What is the average force exerted on the ball by the cushion?

**A** 1.4 N

**B** 2.3 N

**C** 4.2 N

**D** 7.0 N

**8** A tennis ball is released from rest at time  $t = 0$  and falls through air for a long time.