

- 10** A car of mass 1500 kg , travelling at 4.0 m s^{-1} , collides with the rear of a car of mass 1000 kg travelling at 2.0 m s^{-1} in the same direction. The two cars become joined together on impact.

What is the speed of the two cars immediately after the collision?

- A** 1.6 m s^{-1} **B** 2.0 m s^{-1} **C** 2.8 m s^{-1} **D** 3.2 m s^{-1}

- 11** A snooker ball of mass 0.40 kg , moving at 0.020 m s^{-1} , is accelerated to 0.040 m s^{-1} by a cue. What is the impulse of the cue on the ball?