

10 A car of mass 1500 kg , travelling at 4.0 ms^{-1} , collides with the rear of a car of mass 1000 kg travelling at 2.0 ms^{-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 ms^{-1}

B 2.0 ms^{-1}

C 2.8 ms^{-1}

D 3.2 ms^{-1}

11 A snooker ball of mass 0.10 kg moving at 0.080 ms^{-1} is struck with a cue.