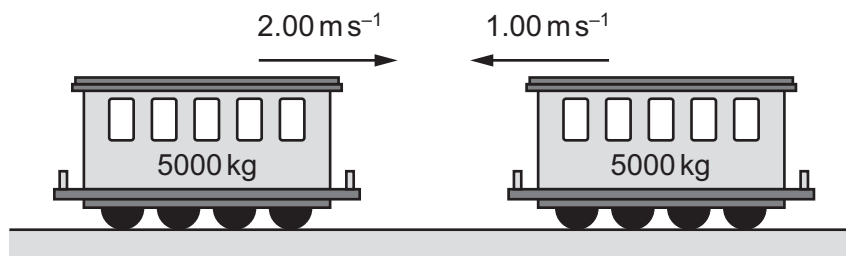**7** Two train carriages each of mass 5000 kg roll toward one another on a level track. One is travelling at $2.00\,\text{m}\,\text{s}^{-1}$ and the other at $1.00\,\text{m}\,\text{s}^{-1}$, as shown.

They collide and join together.

What is the kinetic energy lost during the collision?

A 1250 J **B** 7500 J **C** 11 250 J **D** 12 500 J

Space for working