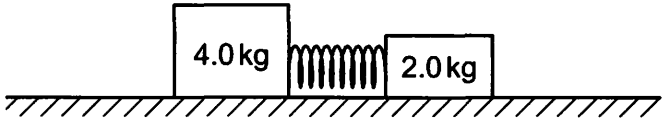
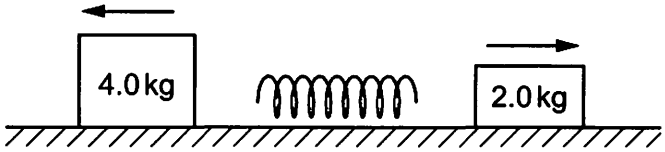
14 The first diagram shows two blocks of mass 4.0 kg and 2.0 kg resting on a frictionless surface. The blocks are held together to compress a spring placed between them. The elastic potential energy stored in the system is 6.0 J.



The two blocks are released at the same instant. They move apart with a total kinetic energy equal to the stored elastic potential energy.



At what speed does the 4.0 kg block move?

A $1.0\,ms^{-1}$ **B** $1.4\,ms^{-1}$ **C** $1.5\,ms^{-1}$ **D** $2.7\,ms^{-1}$