7 A rock of mass $2m$ in deep space, initially travelling at velocity v, explodes into two parts of equal mass, one of which becomes stationary immediately after the explosion.

What is the kinetic energy of the moving part after the explosion?

A $\dfrac{1}{2}mv^2$ **B** mv^2 **C** $\dfrac{3}{2}mv^2$ **D** $2mv^2$