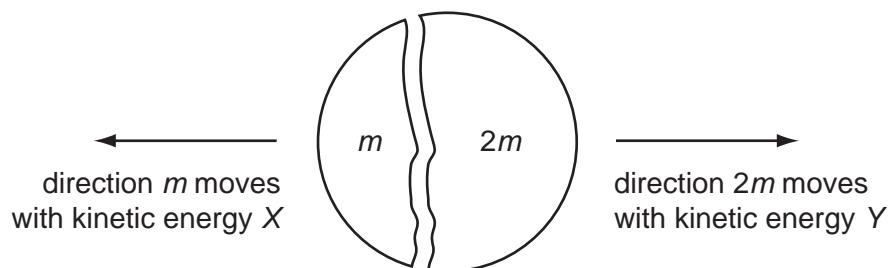


**10** A stationary body explodes into two components of masses  $m$  and  $2m$ .

The components gain kinetic energies  $X$  and  $Y$  respectively.



What is the value of the ratio  $\frac{X}{Y}$ ?

**A**  $\frac{1}{4}$

**B**  $\frac{1}{2}$

**C**  $\frac{2}{1}$

**D**  $\frac{4}{1}$

**Space for working**