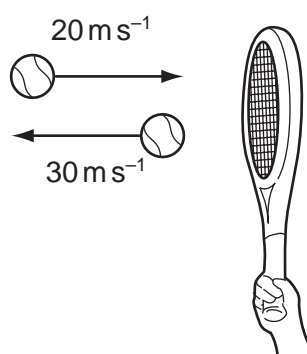


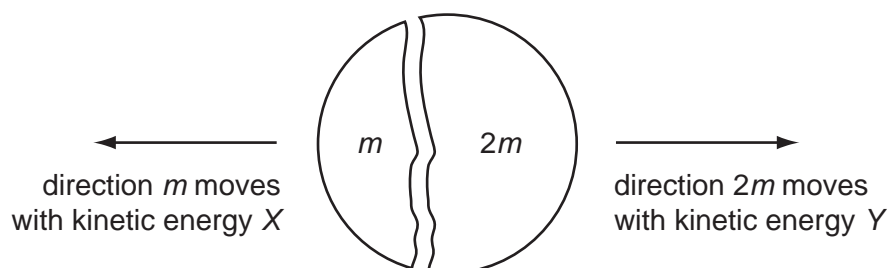
- 9 A tennis ball of mass 100 g is struck by a tennis racket. The velocity of the ball is changed as shown.



What is the magnitude of the change in momentum of the ball?

- A** 1 kg m s^{-1} **B** 5 kg m s^{-1} **C** 1000 kg m s^{-1} **D** 5000 kg m s^{-1}
- 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