

- 13** An object of mass m travelling with speed v has a head-on collision with another object of mass m travelling with speed v in the opposite direction. The two objects stick together after the collision.

What is the total loss of kinetic energy in the collision?

- A** 0 **B** $\frac{1}{2}mv^2$ **C** mv^2 **D** $2mv^2$

- 14** Two identical spheres X and Y approach each other with the speeds shown and undergo a head