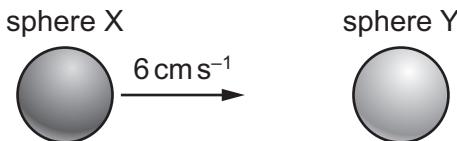


- 11 Two solid spheres form an isolated system. Sphere X moves with speed  $6\text{ cm s}^{-1}$  in a straight line directly towards a stationary sphere Y, as shown.



The spheres have a perfectly elastic collision. After the collision, sphere X moves with speed  $2\text{ cm s}^{-1}$  in the same direction as before the collision.

What is the speed of sphere Y?

- A  $2\text{ cm s}^{-1}$       B  $4\text{ cm s}^{-1}$       C  $6\text{ cm s}^{-1}$       D  $8\text{ cm s}^{-1}$