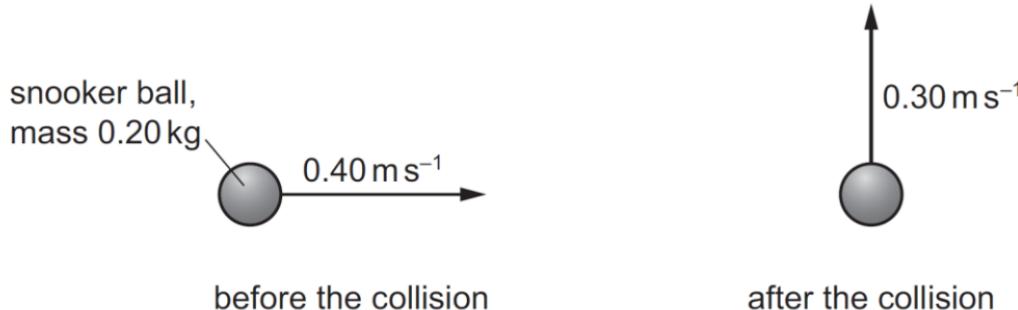


- 5 A snooker ball of mass 0.20 kg has a collision so that its direction of movement changes by an angle of 90° , as shown.



The ball has a speed of 0.40 m s^{-1} before the collision and a speed of 0.30 m s^{-1} after the collision.

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

- A $0.020 \text{ kg m s}^{-1}$
- B 0.10 kg m s^{-1}
- C 0.14 kg m s^{-1}
- D 0.50 kg m s^{-1}

- 6 A camera drone of mass 1.20 kg hovers at a fixed point above the ground. The drone has four