

- 8 In an experiment, object P moves with initial velocity u and then collides with stationary object Q.

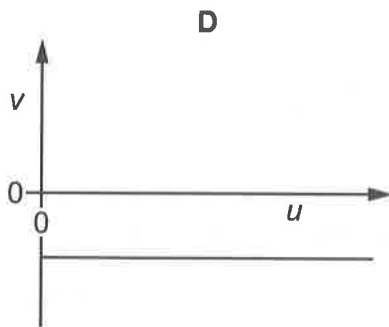
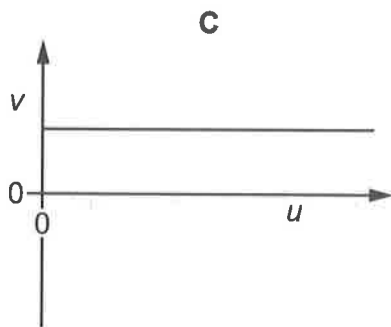
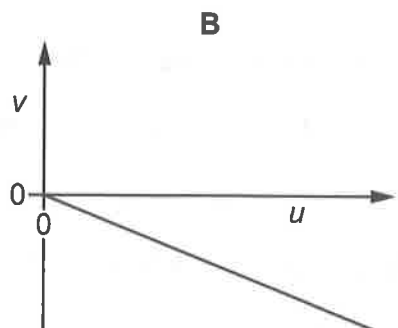
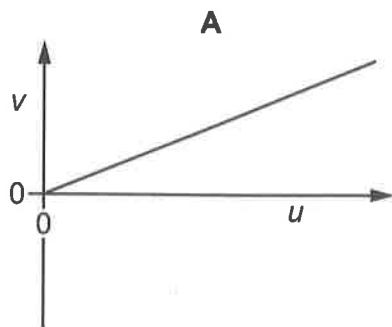
The collision is elastic.

The final velocity of P is v_P and the final velocity of Q is v_Q .

The quantity $v = v_Q - v_P$ is calculated.

The experiment is repeated for different values of u .

Which graph represents the variation of v with u ?



- 9 A motor lifts an object of weight W vertically for a time t . The motor