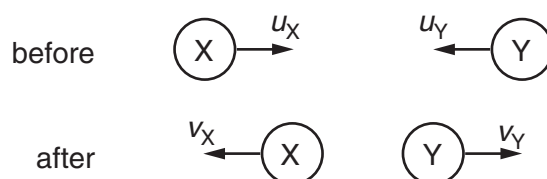


- 10 A mass accelerates uniformly when the resultant force acting on it
- A is zero.
 - B is constant but not zero.
 - C increases uniformly with respect to time.
 - D is proportional to the displacement from a fixed point.
- 11 A molecule of mass m travelling horizontally with velocity u hits a vertical wall at right angles to the wall. It then rebounds horizontally with the same speed.

What is its change in momentum?

- A zero
 - B mu
 - C $-mu$
 - D $-2mu$
- 12 Two balls X and Y approach each other along the same straight line and collide elastically. Their speeds are u_X and u_Y respectively. After the collision they move apart with speeds v_X and v_Y respectively. Their directions are shown on the diagram.



Which of the following equations is correct?

- A $u_X + u_Y = v_X + v_Y$
- B $u_X + u_Y = v_X - v_Y$
- C $u_X - u_Y = v_X + v_Y$
- D $u_X - u_Y = v_X - v_Y$