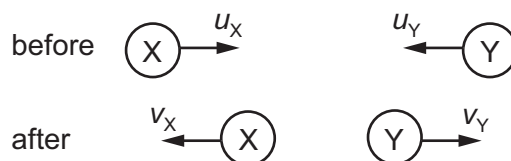


- 10 Two balls, X and Y, approach each other along the same straight line and collide. The collision is perfectly elastic.

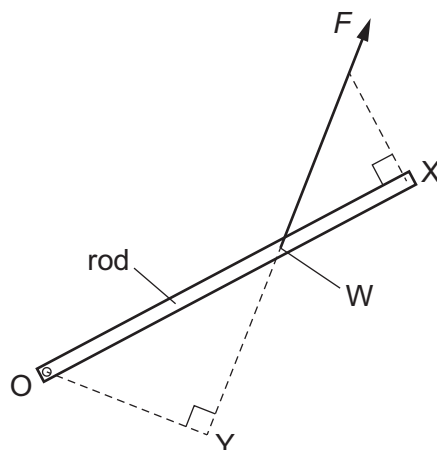
Their initial speeds are u_X and u_Y respectively. After the collision they move apart with speeds v_X and v_Y respectively. Their directions are shown.



Which equation 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 $u_X - u_Y = v_X - v_Y$
- 11 A rod is pivoted at point O.

A force F is applied to the rod at point W, as shown.



What is the moment of the force F about O?

- A $F \times \text{distance OX}$
- B $F \times \text{distance OY}$
- C $F \times \text{distance WO}$
- D $F \times \text{distance WX}$