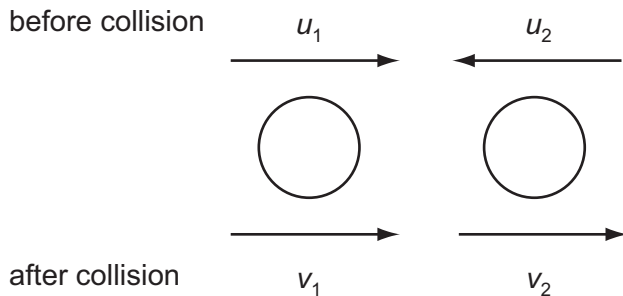


- 10** Two spheres approach each other along the same straight line. Their speeds are u_1 and u_2 before collision, and v_1 and v_2 after collision, in the directions shown below.



Which equation is correct if the collision is perfectly elastic?

- A** $u_1 - u_2 = v_2 + v_1$
- B** $u_1 - u_2 = v_2 - v_1$
- C** $u_1 + u_2 = v_2 + v_1$
- D** $u_1 + u_2 = v_2 - v_1$

- 11** A box of mass 8.0 kg rests on a horizontal rough surface. A string attached to the box passes