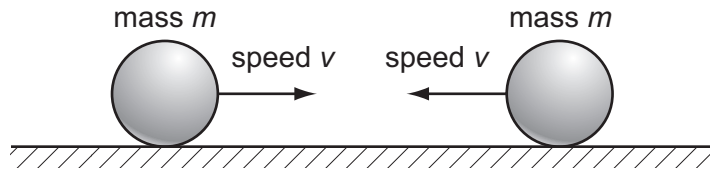


- 13** Two identical, perfectly elastic spheres have the same mass m . They travel towards each other with the same speed v along a horizontal frictionless surface.



Which statement about the sum of the kinetic energies of the spheres is correct?

- A** The sum of their kinetic energies before impact is zero.
- B** The sum of their kinetic energies before impact is $\frac{1}{2}mv^2$.
- C** The sum of their kinetic energies after impact is zero.
- D** The sum of their kinetic energies after impact is mv^2 .

- 14** A 1.2 kg mass is supported by a person's hand and two newton meters as shown