

- 10 The diagram below shows two spheres undergoing a head-on elastic collision. Sphere A has mass $2M$ while sphere B has mass M . Both are moving with speed v towards each other.



Which of the following statements is incorrect?

- A The two spheres cannot come to rest at the same time.
- B The total kinetic energy of both spheres is conserved throughout the collision.
- C The magnitude of the change in momentum for each sphere is the same after the collision.
- D The force exerted by sphere A on B is equal and opposite to the force exerted by B on A during the collision.