

- 3** Two spheres with different masses are initially moving towards each other with the same speed. The two spheres collide elastically.

Which of the following statements is **true**?

- A** The two spheres can be at rest at the same time because they were initially moving in opposite directions.
- B** The two spheres can be at rest at the same time because momentum is always conserved in an elastic collision.
- C** The two spheres cannot be at rest at the same time at any point in time because the total momentum of the system is not zero.
- D** The two spheres cannot be at rest at the same time at any point in time because energy is always conserved in an elastic collision.