3 Object A moving with an initial velocity u has a head-on elastic collision with a stationary object B. After the collision, the velocity of object A is v and that of the object B is w.

Taking the masses of the object A and object B to be equal, which one of the following statements is *wrong*?

A Object A and object B have equal kinetic energy after the collision since the collision is elastic.

B Kinetic energy of object A before the collision is the same as the kinetic energy of object B after the collision.

C $u^2 = v^2 + w^2$

D $u = v + w$