

11 Trolley X, moving along a horizontal frictionless track, collides with a stationary trolley Y. The two trolleys become attached and move off together.

Which statement about this interaction is correct?

- A** Some of the kinetic energy of trolley X is changed to momentum in the collision.
- B** Some of the momentum of trolley X is changed to kinetic energy in the collision.
- C** Trolley X loses some of its momentum as heat in the collision.
- D** Trolley X shares its momentum with trolley Y but some of its kinetic energy is lost.

12 An astronaut throws a stone with a horizontal velocity near to the Moon's surface.