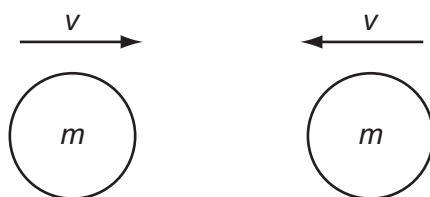


10 Each option gives a correct word equation involving force.

Which option gives the definition of force?

- A force = energy divided by displacement
- B force = mass  $\times$  acceleration
- C force = pressure  $\times$  area
- D force = rate of change of momentum

11 Two similar spheres, each of mass  $m$  and travelling with speed  $v$ , are moving towards each other.



The spheres have a head-on elastic collision.

Which statement is correct?

- A The spheres stick together on impact.
- B The total kinetic energy after impact is  $mv^2$ .
- C The total kinetic energy before impact is zero.
- D The total momentum before impact is  $2mv$ .

**Space for working**