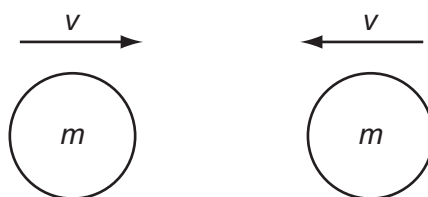**10** Each option gives a correct word equation involving force.

Which option gives the definition of force?

A   force = energy divided by displacement

B   force = mass × acceleration

C   force = pressure × 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