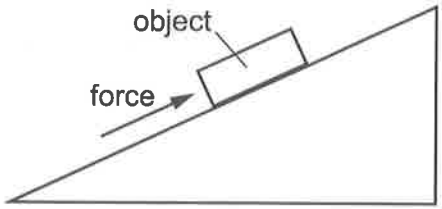
19 A constant force acts to push an object up a smooth slope.



Which equation correctly relates the energy changes as the object moves up the slope?

A gravitational potential energy gained by the object = weight of the object × vertical distance moved by the object

B kinetic energy gained by the object = $\frac{1}{2}$ × mass of the object × change in its velocity

C kinetic energy gained by the object = change in gravitational potential energy of the object

D work done on the object by the force = magnitude of force × vertical distance moved by the object