

- 18** The change in gravitational potential energy ΔE of an object of mass m when moving through height Δh near the surface of the Earth is given by the equation shown.

$$\Delta E = mg\Delta h$$

Which equation is needed as part of the derivation of this expression?

- A** kinetic energy = $\frac{1}{2} \times \text{mass} \times (\text{speed})^2$
- B** moment = force \times distance
- C** weight = mass \times acceleration of free fall
- D** work done = power \times time