

- 17** When an object of mass  $m$  is raised through a vertical height  $\Delta h$ , the gain of its gravitational potential energy is  $\Delta E_p$ .

$\Delta E_p$  and  $\Delta h$  are related by the equation

$$\Delta E_p = mg\Delta h,$$

where  $g$  is the acceleration of free fall.

The definition of which physical quantity is needed to derive this equation?

- A** acceleration
- B** momentum
- C** power
- D** work done