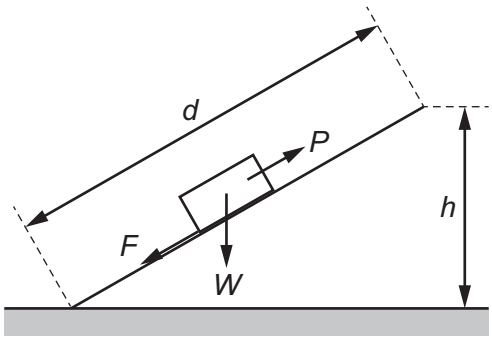
15 A box of weight W is pulled by a force P along a slope.

The length of the slope is d, and the box rises a height h.

The frictional force between the box and the slope is F.

The diagram shows the directions of the forces.



The purpose of the slope is to raise the box vertically.

Which expression gives the efficiency of the slope?

A $\frac{Fd}{Wh}$ **B** $\frac{Pd}{Wh}$ **C** $\frac{Wh}{Fd}$ **D** $\frac{Wh}{Pd}$

16 The kinetic energy of a particle is increased by a factor of 4.

By what factor does its speed increase?

A 2 **B** 4 **C** 8 **D** 16

17 A mass of 28 g is raised vertically upwards through a distance of 4.6 m.

What is the change in gravitational potential energy of the mass?

A 0.13 J **B** 1.3 J **C** 130 J **D** 1300 J