

**12** A body of mass  $m$  moves at constant speed  $v$  for a distance  $s$  against a constant  $F$ . What is the power required to sustain this motion?

**A**  $mv$

**B**  $\frac{1}{2} mv^2$

**C**  $\frac{1}{2} Fs$

**D**  $Fv$

**13** A body of mass  $100\text{ kg}$  is pushed up a rough incline of length  $100\text{ m}$  by a constant force of  $1000\text{ N}$  acting parallel to the incline. The body starts from rest and reaches the top of the incline with a speed of  $10\text{ m s}^{-1}$ . The work done against friction is