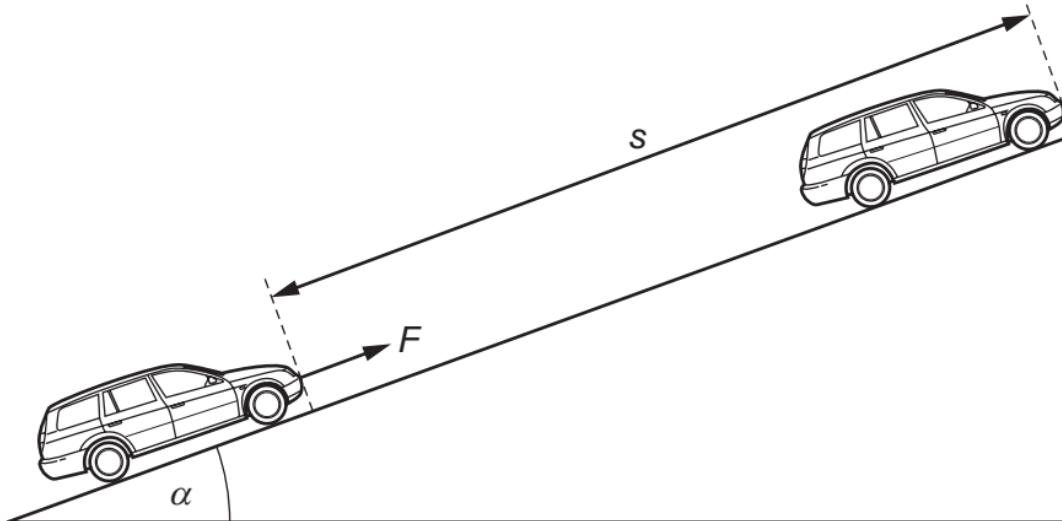


- 17 A constant force  $F$ , acting on a car of mass  $m$ , moves the car up a slope through a distance  $s$  at constant velocity  $v$ . The angle of the slope to the horizontal is  $\alpha$ .



What is the ratio  $\frac{\text{gravitational potential energy gained by car}}{\text{work done by force } F}$ ?

A  $\frac{mgs \sin \alpha}{Fv}$

B  $\frac{mv}{Fs}$

C  $\frac{mv^2}{2Fs}$

D  $\frac{mg \sin \alpha}{F}$