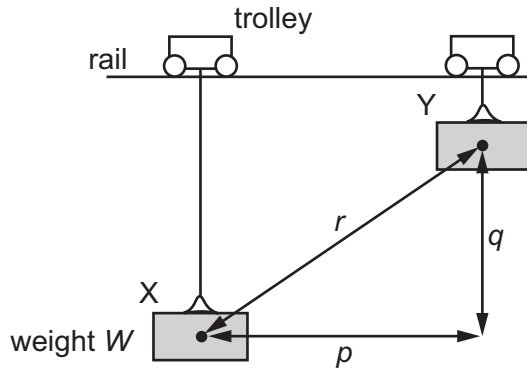


- 15** A weight  $W$  hangs from a trolley that runs along a rail. The trolley moves horizontally through a distance  $p$  and simultaneously raises the weight through a height  $q$ .



As a result, the weight moves through a distance  $r$  from  $X$  to  $Y$ . It starts and finishes at rest.

How much work is done on the weight during this process?

- A**  $Wp$                       **B**  $W(p + q)$                       **C**  $Wq$                       **D**  $Wr$

- 16** The engine of a car exerts a force of  $600\text{ N}$  in moving the car  $1.0\text{ km}$  in  $150$  seconds.