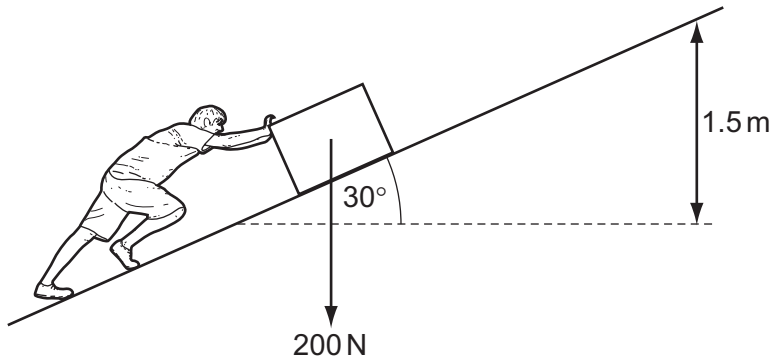


- 14** A box of weight  $200\text{ N}$  is pushed so that it moves at a steady speed along a ramp, through a height of  $1.5\text{ m}$ . The ramp makes an angle of  $30^\circ$  with the ground. The frictional force on the box is  $150\text{ N}$  while the box is moving.



What is the work done by the person?

- A**  $150\text{ J}$                       **B**  $300\text{ J}$                       **C**  $450\text{ J}$                       **D**  $750\text{ J}$

- 15** A raindrop of mass  $m$  is falling vertically through the air with a steady speed  $v$ . The raindrop