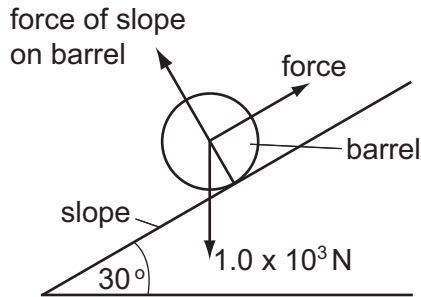


- 16** The diagram shows a barrel of weight $1.0 \times 10^3 \text{ N}$ on a frictionless slope inclined at 30° to the horizontal.



A force is applied to the barrel to move it up the slope at constant speed. The force is parallel to the slope.

What is the work done in moving the barrel a distance of 5.0 m up the slope?

- A** $1.0 \times 10^4 \text{ J}$ **B** $2.5 \times 10^3 \text{ J}$ **C** $4.3 \times 10^3 \text{ J}$ **D** $5.0 \times 10^3 \text{ J}$

- 17** Why does the pressure increase when a sealed container of gas is heated?