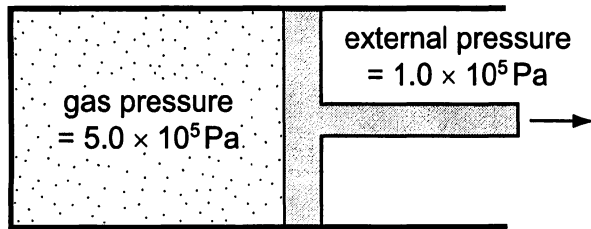


- 13 A gas at a pressure of  $5.0 \times 10^5 \text{ Pa}$  is enclosed in a cylinder fitted with a piston.



The gas expands by  $4.0 \text{ m}^3$  against a constant external pressure of  $1.0 \times 10^5 \text{ Pa}$ .

How much work does the gas do against the external pressure?

- A**  $4.0 \times 10^5 \text{ J}$       **B**  $12 \times 10^5 \text{ J}$       **C**  $16 \times 10^5 \text{ J}$       **D**  $20 \times 10^5 \text{ J}$