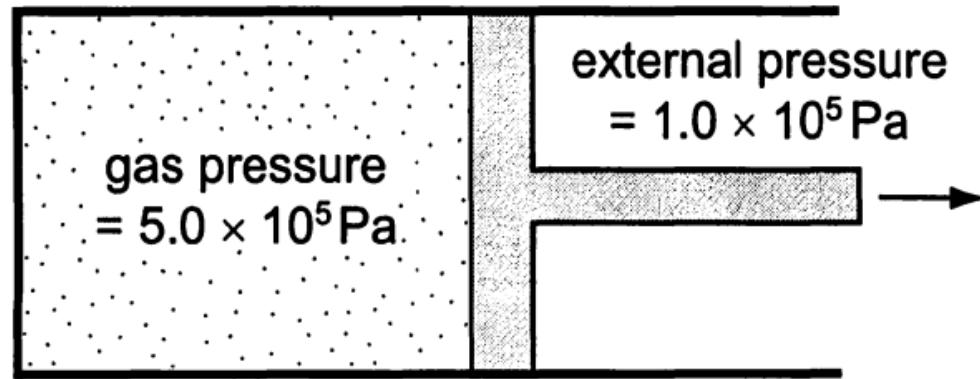


13 A gas at a pressure of  $5.0 \times 10^5$  Pa is enclosed in a cylinder fitted with a piston.



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

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

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