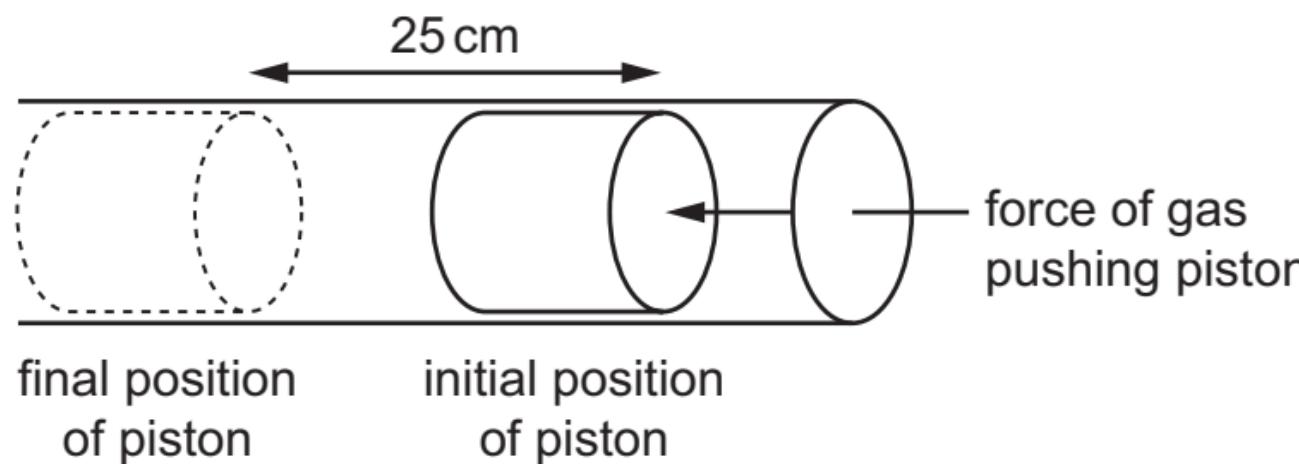


- 17 The gas in an engine does work on a piston of cross-sectional area  $80\text{ cm}^2$ . The pressure on the piston has a constant value of  $4.6 \times 10^5\text{ Pa}$ .



How much work is done by the gas on the piston when it moves through a distance of 25 cm?

- A**  $9.2 \times 10^2\text{ J}$     **B**  $9.2 \times 10^4\text{ J}$     **C**  $9.2 \times 10^6\text{ J}$     **D**  $9.2 \times 10^8\text{ J}$

- 18 A loaded aeroplane has a total mass of  $1.2 \times 10^5\text{ kg}$  while climbing after take-off. It climbs at an