



$$W_{i \rightarrow f} = -60 \text{ J.}$$

$$W_{i \rightarrow f} = - \int_{V_i}^{V_f} P dV$$

for an isobaric process:

$$W_{i \rightarrow f} = -P \Delta V = -P_i (V_f - V_i)$$

$$\text{So } P_i = \frac{-W_{i \rightarrow f}}{(V_f - V_i)}$$

$$V_i = 100 \times 10^{-6} \text{ m}^3; \quad V_f = 300 \times 10^{-6} \text{ m}^3$$

So:

$$P_i = 3 \times 10^5 \text{ Pa} = 300 \text{ kPa}$$


---