

Quiz 1

In an engine, 0.5 L of atmospheric air ($T = 30^\circ \text{C}$, $P = 1 \text{ atm} \approx 10^5 \text{ Pa}$) is quickly (adiabatically) compressed to $\frac{1}{10}$ of its initial volume. What is the final temperature of the gas? How much work is done on the gas during this process?