

- 13** A fixed mass of ideal gas that has volume  $V$ , temperature  $T$ , pressure  $p$ , and translational kinetic energy  $K$ , is heated and allowed to expand to a final volume  $2V$  and pressure  $2p$ .

What is the translational kinetic energy of the gas molecules after heating?

**A**  $\frac{1}{2} K$

**B**  $K$

**C**  $2K$

**D**  $4K$

