

- 14** An ideal gas of volume  $V$  at a temperature of 200 K and pressure  $2p$  is mixed with another volume of the same ideal gas,  $2V$ , at a temperature of 300 K and pressure  $3p$ .

If the mixture has a volume  $V$  at a temperature of 100 K, what is its pressure?

**A**  $1.6p$

**B**  $2.5p$

**C**  $3.0p$

**D**  $4.0p$