

- 15** A fixed mass of ideal gas undergoes a contraction in volume from  $80 \times 10^{-3} \text{ m}^3$  to  $40 \times 10^{-3} \text{ m}^3$  at a constant pressure of 25 kPa. During this contraction, 2500 J of heat is removed from the gas.

What is the change in internal energy of the gas?

**A** -3500 J

**B** -1500 J

**C** 1500 J

**D** 3500 J