

**TOPIC**

Thermodynamics

**QUESTION**

Air in a closed-rigid vessel at 2 bars and 25°C is heated until its temperature is 100°C. The final pressure in bars most nearly is

- (A) 2.50
- (B) 4.40
- (C) 8.00
- (D) 256.0

**HINTS**

- Closed means constant mass of air
- Rigid means constant volume
- Constant mass and constant volume mean constant specific volume
- Use absolute temperature
- For an ideal gas,

$$V = \frac{RT}{P}.$$

- $V_1 = V_2$

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