

P #B

Ch 12 Worksheet

$$n = 1.5 \text{ mol}$$

$$\Delta T = 120 \text{ K}$$

$$\Delta KE = \frac{3}{2} \cdot k_B \cdot \Delta T \quad \text{OR} \quad \Delta U = \frac{3}{2} \cdot n \cdot R \cdot \Delta T$$

$$\Delta U = \frac{3}{2} \cdot (1.5 \text{ mol}) (8.31 \text{ J/mol} \cdot \text{K}) (120 \text{ K})$$

$$\Delta U = 2240 \text{ J}$$