

40.)

$$V = 5\text{ l} \quad p = 0,1 \text{ MPa} \quad N_2 \quad Q = 1,5 \text{ kJ} \quad \kappa = 1,4 \quad p_2 = ?$$

$$\Delta E_b = Q + W$$

$$pV = nRT$$

$$\Delta E_b = \frac{f}{2} nR\Delta T$$

$$\kappa = \frac{C_p}{C_v}$$

$$Q = C\Delta T$$

$$C = cm = c^m \cdot n$$

$$\text{Ha } V = \text{all} \quad W = 0$$

$$\Delta E_b = Q$$

$$\frac{f}{2} nR\Delta T = c_v^m n\Delta T$$

$$c_v^m = \frac{f}{2} R$$

$$\kappa = \frac{C_p}{C_v} = \frac{c_p^m}{c_v^m} = \frac{\frac{f}{2} + 1}{\frac{f}{2}} = \frac{f+2}{f}$$

$$\Downarrow$$

$$\Downarrow$$

$$\underline{\underline{=}}$$

$$\text{Ha } p = \text{all} \quad W = -p\Delta V$$

$$pV = nRT$$

$$p\Delta V = nR\Delta T$$

$$\frac{f}{2} nR\Delta T = c_p^m n\Delta T - p\Delta V$$

$$\frac{f}{2} nR\Delta T = c_p^m n\Delta T - nR\Delta T$$

$$\left(\frac{f}{2} + 1\right) nR\Delta T = c_p^m n\Delta T$$

$$c_p^m = \left(\frac{f}{2} + 1\right) R$$

$$\text{Most } V = \text{all}$$

$$\Delta E_b = Q$$

$$\frac{f}{2} nR\Delta T = Q$$

$$\frac{f}{2} \Delta p V = Q$$

$$\underline{\underline{\Delta p}} = \frac{2}{f} \frac{Q}{V} = \dots$$

$$pV = nRT$$

$$\Delta p V = nR\Delta T$$

$$\underline{\underline{p_2}} = p_1 + \Delta p = \dots$$