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$$\begin{cases} P_1 V = nRT_1 \\ P_2 V = nRT_2 \end{cases}$$

$$\Rightarrow T_2 = T_1 \frac{P_2}{P_1} = 293 \frac{2,3}{2,1} = 321 \text{ K}$$

$$\Rightarrow \Theta_2 = 48 \text{ }^\circ\text{C}$$

1/2

$$P_1 V_1 = P_2 V_2 \Rightarrow V_2 = \frac{P_1 V_1}{P_2} = 15 \cdot 60 = 900 \text{ L}$$

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$$P(V-b) = RT \Leftrightarrow V = \frac{RT}{P} + b$$

$$\Rightarrow \left(\frac{\partial V}{\partial T}\right)_P = \frac{R}{P}$$

$$\Rightarrow \alpha = \frac{R}{PV}$$

$$\left(\frac{\partial V}{\partial P}\right)_T = -\frac{RT}{P^2}$$

$$\Rightarrow \chi_T = -\frac{1}{V} \left(-\frac{RT}{P^2}\right)$$

$$= \frac{RT}{P^2 V}$$

$$= \frac{P(V-b)}{P \cdot PV}$$