

$$\kappa = \frac{c_p}{c_v} \quad (\chi \text{ in der Aufgabenstellung}) \quad (\text{Folie 43})$$

$\kappa$ : Adiabatenexponent

$$\frac{5}{3} = 1,67 \Rightarrow 1 - \text{atomige Gase (He, Ne, ...)} \quad (\text{Folie 23})$$

$$\frac{7}{5} = 1,4 \Rightarrow 2 - \text{atomige Gase (O}_2, \text{H}_2, \dots) \quad (\text{Folie 24})$$

Poissonsche Gleichung  $p * V^\kappa = \text{const.}$  (Folie 44)

$$p_0 * V_0^\kappa = p \left( \frac{V_0}{2} \right)^\kappa$$

$$2^\kappa * p_0 * V_0^\kappa = p * V_0^\kappa$$

$$\frac{2^\kappa * p_0 * V_0^\kappa}{V_0^\kappa} = p$$

$$p = p_0 * 2^\kappa$$

$$\frac{p}{p_0} = 2^\kappa$$

$$\frac{p_A}{p_0} = 2^{\frac{5}{3}} = 3,175$$

$$\frac{p_B}{p_0} = 2^{\frac{7}{5}} = 2,639$$