

## Adiabatický děj

$$p \cdot v^\kappa = \text{konst}$$

$$p_1 \cdot v_1^\kappa = p_2 \cdot v_2^\kappa$$

$$\left(\frac{v_1}{v_2}\right)^\kappa = \left(\frac{p_2}{p_1}\right) ; \left(\frac{v_1}{v_2}\right) = \left(\frac{p_2}{p_1}\right)^{\frac{1}{\kappa}}$$

$$p_1 \cdot v_1 = r \cdot T_1$$

$$p_2 \cdot v_2 = r \cdot T_2$$

$$\frac{p_1}{p_2} \cdot \frac{v_1}{v_2} = \frac{T_1}{T_2}$$

$$\frac{p_1}{p_2} \cdot \left(\frac{p_2}{p_1}\right)^{\frac{1}{\kappa}} = \left(\frac{p_2}{p_1}\right)^{-1} \cdot \left(\frac{p_2}{p_1}\right)^{\frac{1}{\kappa}} = \left(\frac{p_2}{p_1}\right)^{\frac{-\kappa+1}{\kappa}} = \left(\frac{p_2}{p_1}\right)^{\frac{1-\kappa}{\kappa}} = \left(\frac{p_1}{p_2}\right)^{\frac{\kappa-1}{\kappa}} = \frac{T_1}{T_2}$$

$$\left(\frac{v_1}{v_2}\right)^{-\kappa} \cdot \left(\frac{v_1}{v_2}\right) = \left(\frac{v_1}{v_2}\right)^{1-\kappa} = \left(\frac{v_2}{v_1}\right)^{\kappa-1} = \frac{T_1}{T_2}$$

$$\frac{T_1}{T_2} = \left(\frac{v_1}{v_2}\right)^{1-\kappa} = \left(\frac{p_1}{p_2}\right)^{\frac{\kappa-1}{\kappa}} = \left(\frac{v_2}{v_1}\right)^{\kappa-1} = \left(\frac{p_2}{p_1}\right)^{\frac{1-\kappa}{\kappa}}$$

$$\frac{T_2}{T_1} = \left(\frac{v_2}{v_1}\right)^{1-\kappa} = \left(\frac{p_2}{p_1}\right)^{\frac{\kappa-1}{\kappa}} = \left(\frac{v_1}{v_2}\right)^{\kappa-1} = \left(\frac{p_1}{p_2}\right)^{\frac{1-\kappa}{\kappa}}$$