

Euler-Riemann-  
Problem

$t = 0$

$$\underline{U}_L = \begin{pmatrix} p_L \\ p_L \\ v_L \end{pmatrix}$$

$$\underline{U}_R = \begin{pmatrix} p_R \\ p_R \\ v_R \end{pmatrix}$$

L

R

Sod Shock Tube  
for  $v_L = v_R = 0$



What happens  
after  $t = 0$ ?