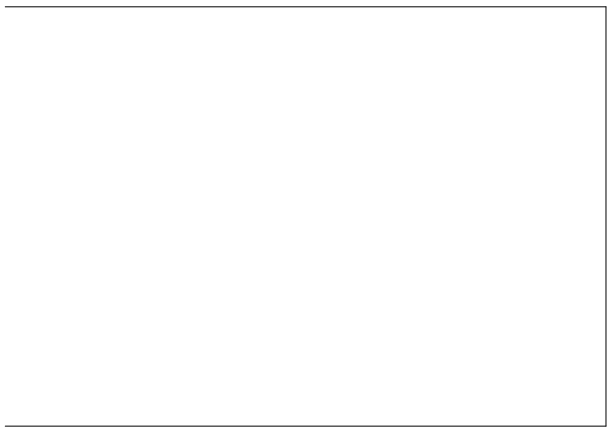
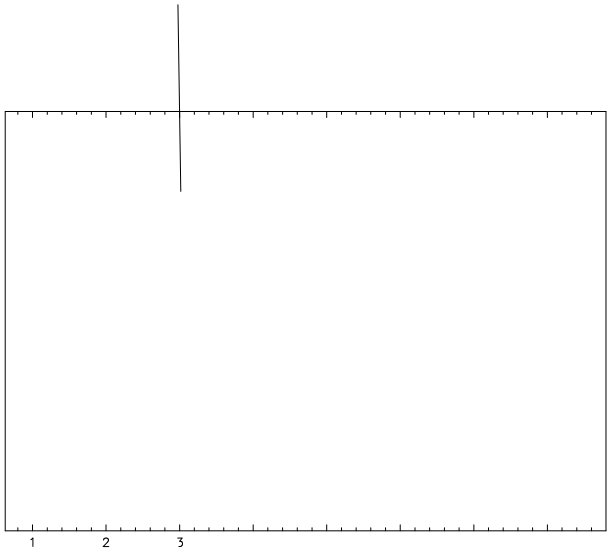
1 Rieman Shock Tube Problem

1. $P_R = 100kPa$, $P_L = 10kPa$
2. $\rho_R = 1.0$, $\rho_L = 0.125$
3. $u_R = 0.0$, $u_L = 0.0$
4. CFL = 0.9, based on $|\vec{U}|_{max} + c$
5. $t_{max} = 0.0045$ sec

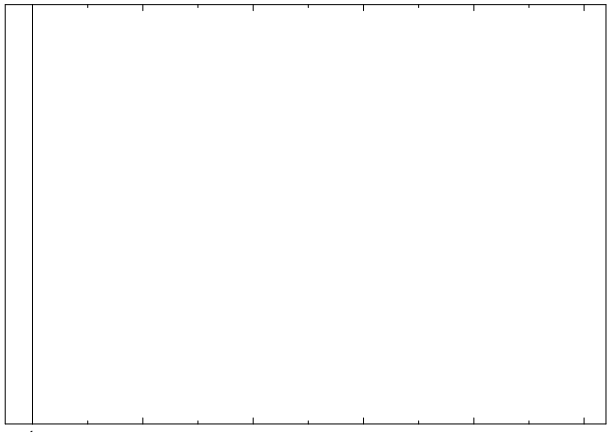


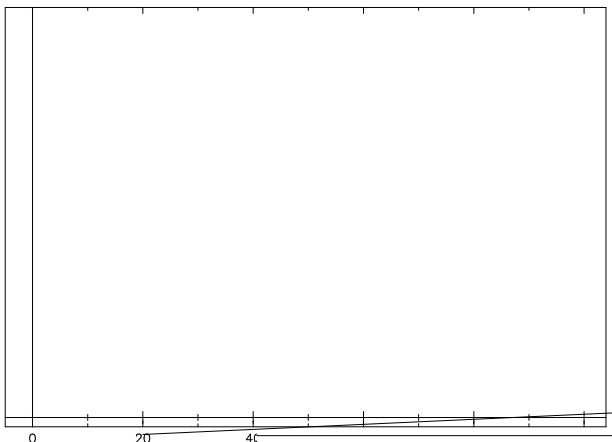

1
2
3

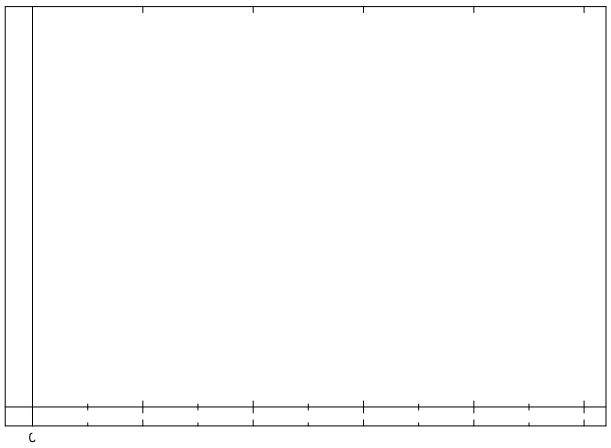
2 Inviscid Burgers Equation: Expansion fan

See page 202 of Numerical Computation of Internal and External Flow vol 2, C. Hirsch for details on the problem setup

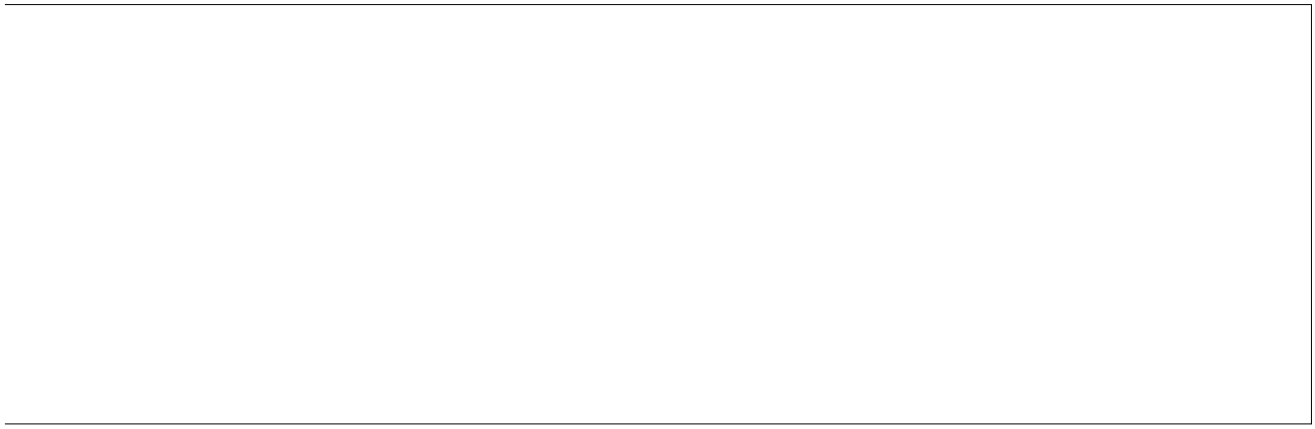
1. $P_R = 100kPa$, $P_L = 100kPa$
2. $\rho_R = 1.0$, $\rho_L = 1.0$
3. $u_R = 0.0$, $u_L = 0.0$
4. CFL = 0.9, based on $|\vec{U}|_{max} + c$
5. $t_{max} = 0.175$ sec




0
20



3 Inviscid Bur



4 Inviscid Burgers Equation: Initial shock discontinuity

See page 200 of Numerical Computation of Internal and External Flow vol 2, C. Hirsch for details on the problem setup

1. $P = 1Pa$
2. $\rho = 1.0$
3. $u_L = 100.0, u_R = 50m/s$
4. CFL = 0.9, based on $|\vec{U}|_{max} + c$
5. t_{max}