Lax Friedrich and Roe

To plot the solution at final time with the Lax Friedrich/Roe flux do:
If we want to test for the first case of the project (i.e. the one with non zero source term)
1) Open plot2 (is divided in 2 so we need to run only the first part)
2)Select the limiter we want to use
3)Be sure data=1 in this case
4)Open evalRHS and put as comment the computation of RHS without the source term and uncomment the computation of RHS with the source. Choose the Flux we want to use in a similar way.
5) In the case of Minmod TVB limiter open SlopeLimiter and change the value of M with what we want

If we want to test for the other cases do:
1) Open plot2 (where we need to run only the second parte)
2) Choose the limiter used to compute the numerical solution (not for the reference one, where we choose MUSCL)
3) Choose the data corresponding to the right initial conditions and boundary conditions
4) Open evalRHS and choose the LF/Roe flux we want and the RHS without the Source term
5) In the case of Minmod TVB limiter open SlopeLimiter and change the value of M we want
6) If we test case 5 (data=5) we need to change final time for the reference solution a compute it using LF (run only this part) then change to Roe flux and run the last part with the final time also changed.

To plot the numerical error at final time with LF/Roe Flux do:
If we want to test for the first case of the project (i.e. the one with non zero source term)
1) Open error2 (as before for first case we need to run only the first part)
2) Open evalRHS and put as comment the computation of RHS without the source term and uncomment the computation of RHS with the source. Choose the Flux we want to use in a similar way.
3) In the case of Minmod TVB limiter open SlopeLimiter and change the value of M we want
4) run the code (all the errors are computed) and we just need to change in the plot lines error_hi and error_mi, where i is the number correspond to the limiter we want to plot. We can also change the slope of the confront line.

If we want to test for the other cases do:
1) Open error2 (need to run only the second part)
2)Choose the data we want to use
3) Open evalRHS and put as comment the computation of RHS with the source term and uncomment the computation of RHS without the source. Choose the Flux we want to use in a similar way.

4) In the case of Minmod TVB limiter open SlopeLimiter and change the value of M we want
5) run the code (all the errors are computed) and we just need to change in the plot lines error_hi and error_mi, where i is the number correspond to the limiter we want to plot. We can also change the slope of the confront line.