

- The order of convergence of this method with respect to Δx is 2 because the data of $(\Delta x_i, Error_i)$ fits to the quadratic curve.
- We see that the solution for $CFL = 0.75$ has a quickly vibrating part around $x = 0$, while the solution for $CFL = 0.7$ perfectly matches the analytical solution. Since analytically AB3 requires $CFL < .7236$ to be stable, it is predictable that solution for $CFL = 0.75$ will be unstable.