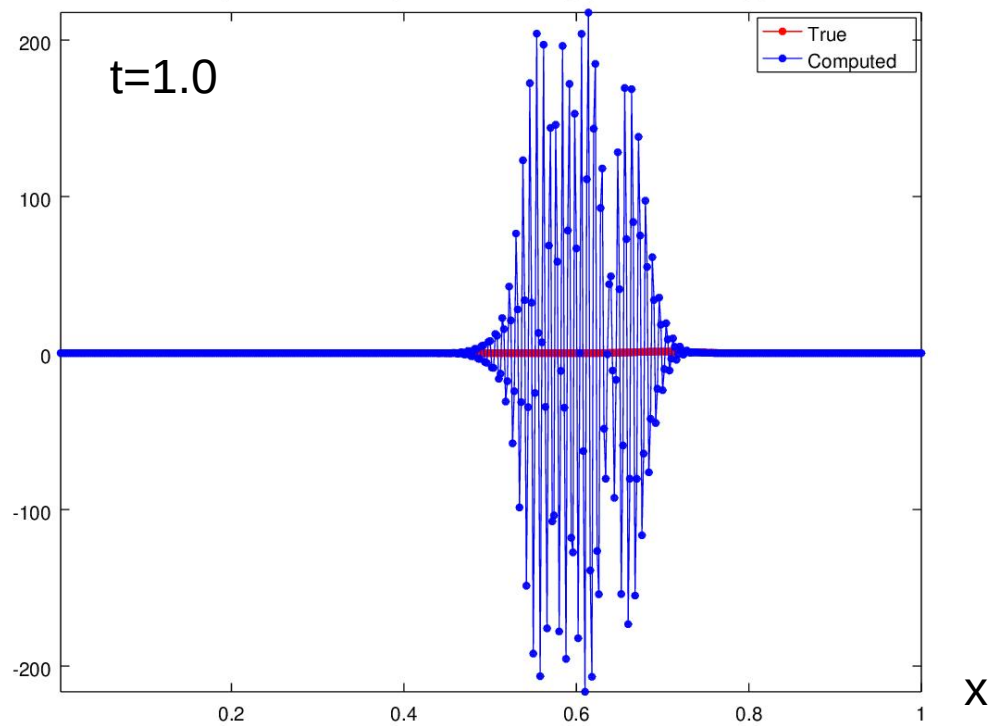
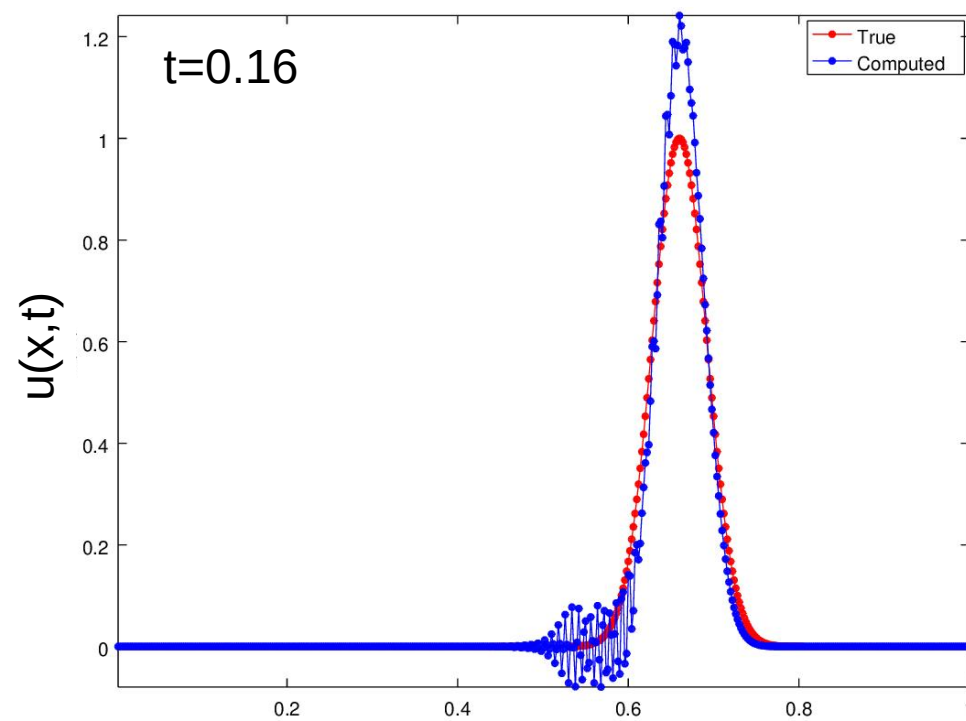
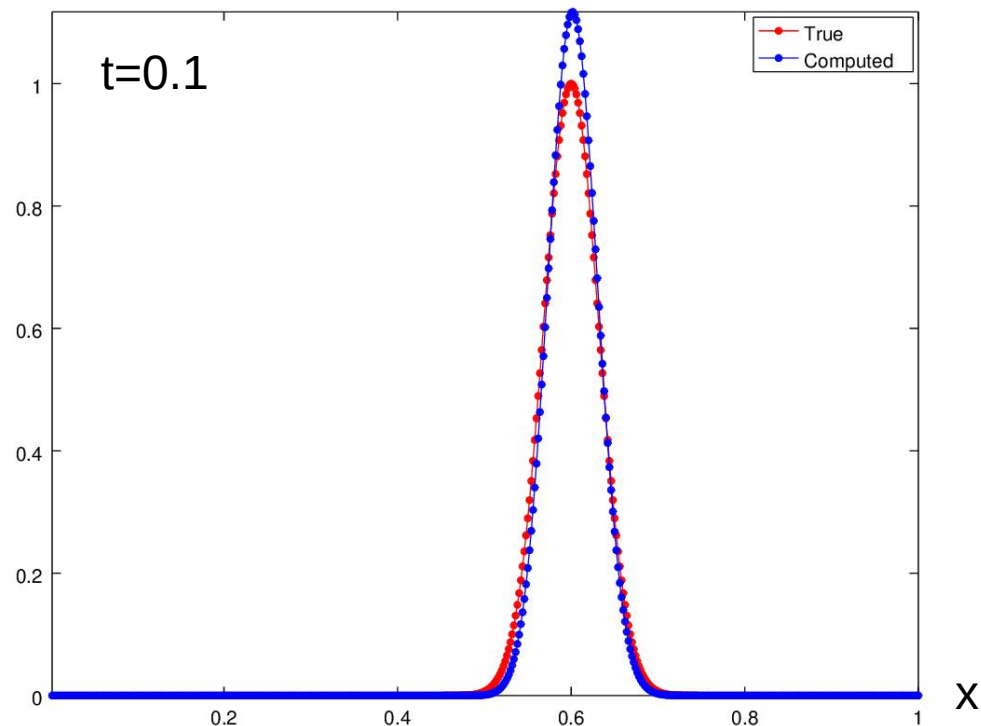
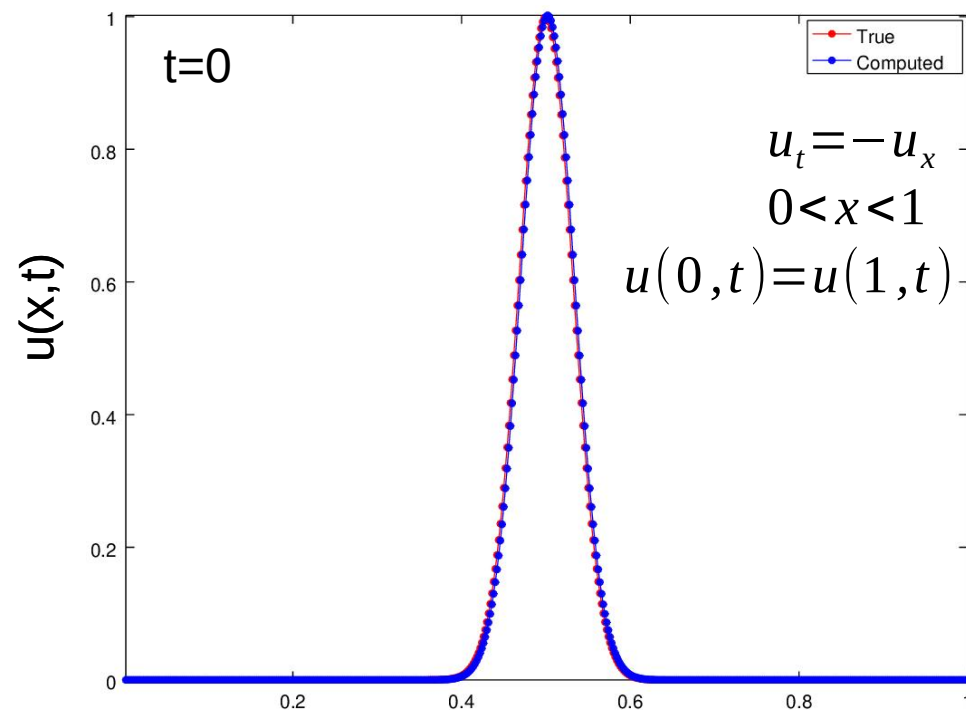
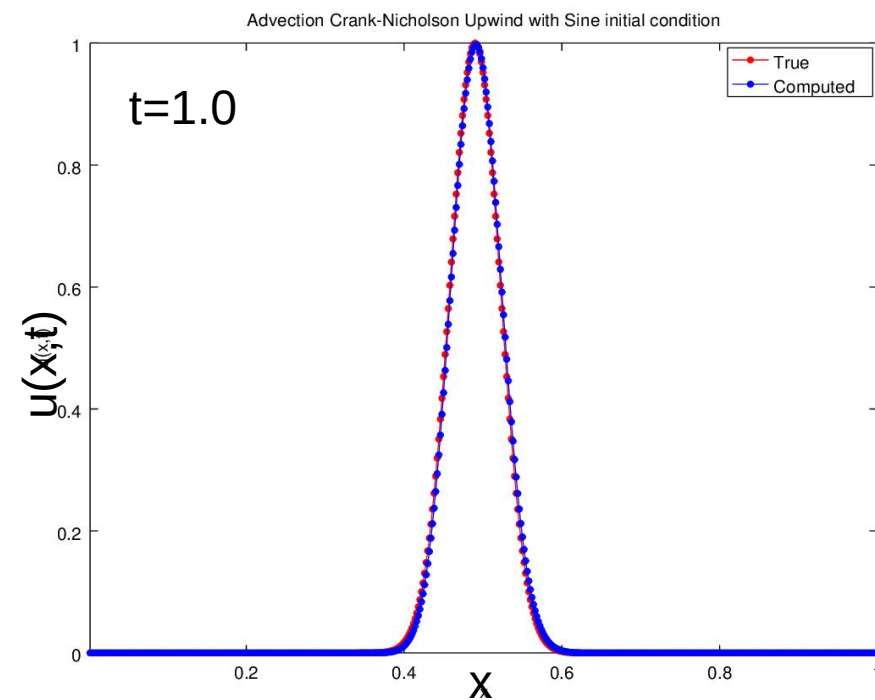
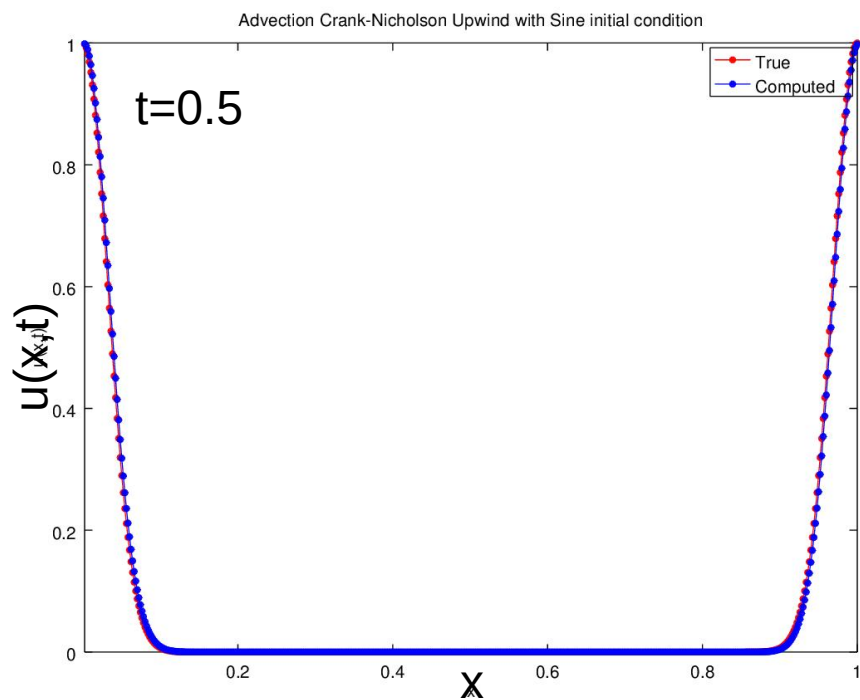
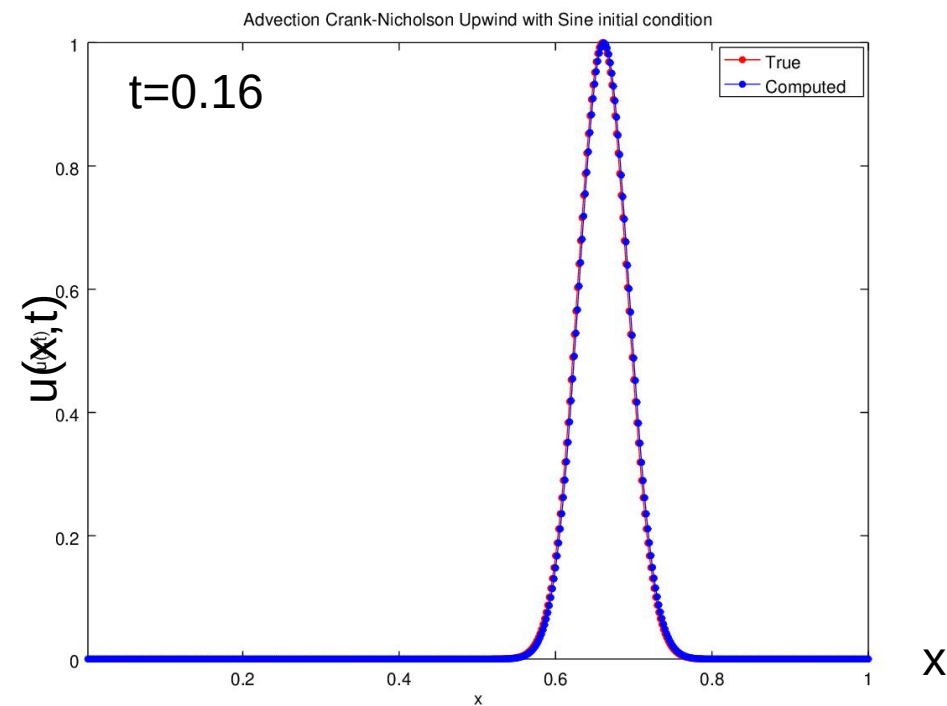
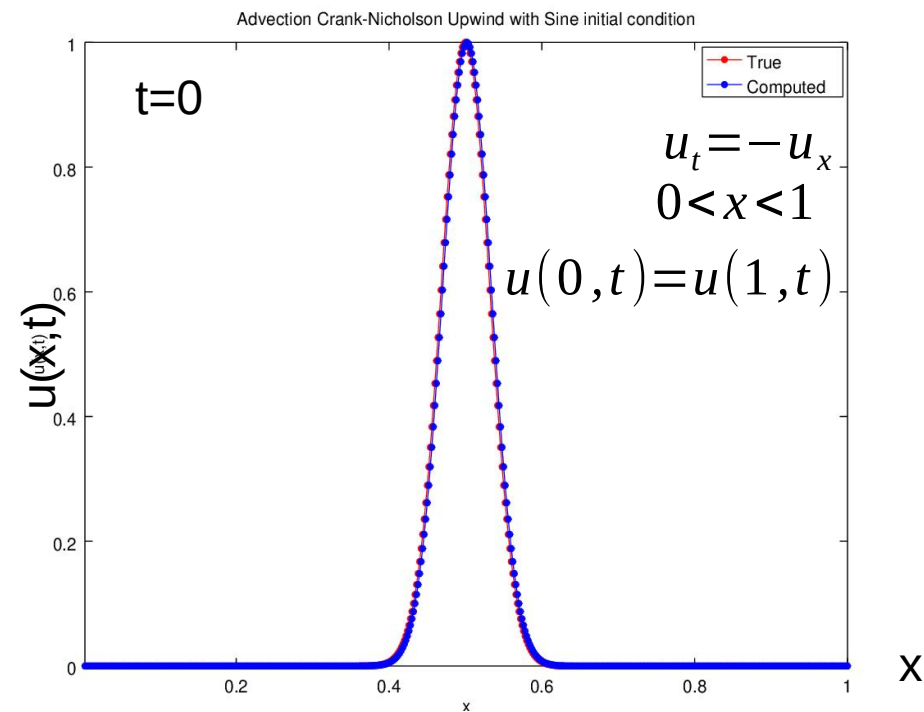


(A) Advection Forward Euler scheme (explicit) with $u(x, 0) = \sin(\pi x)^{100}$



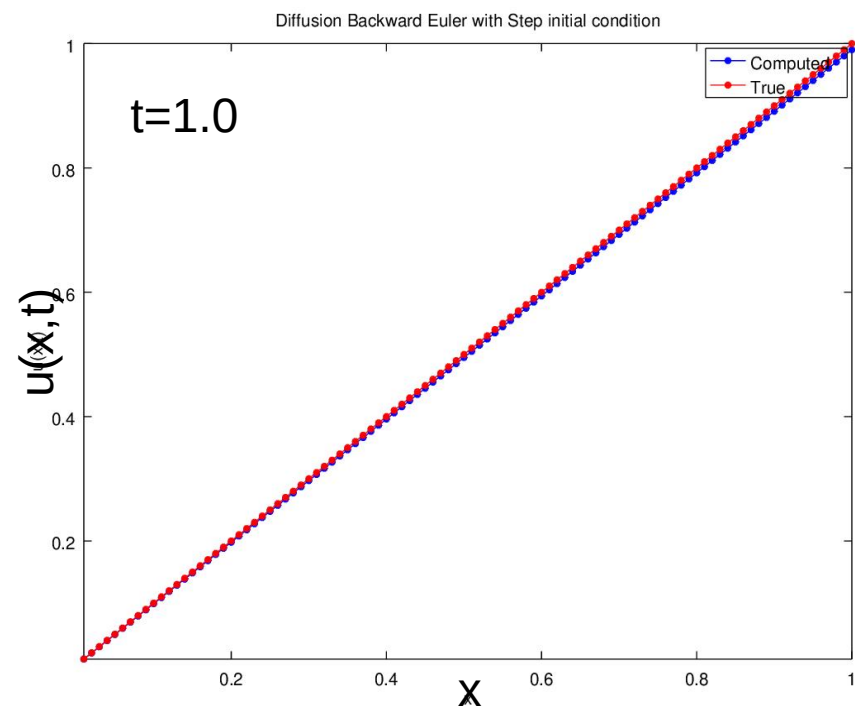
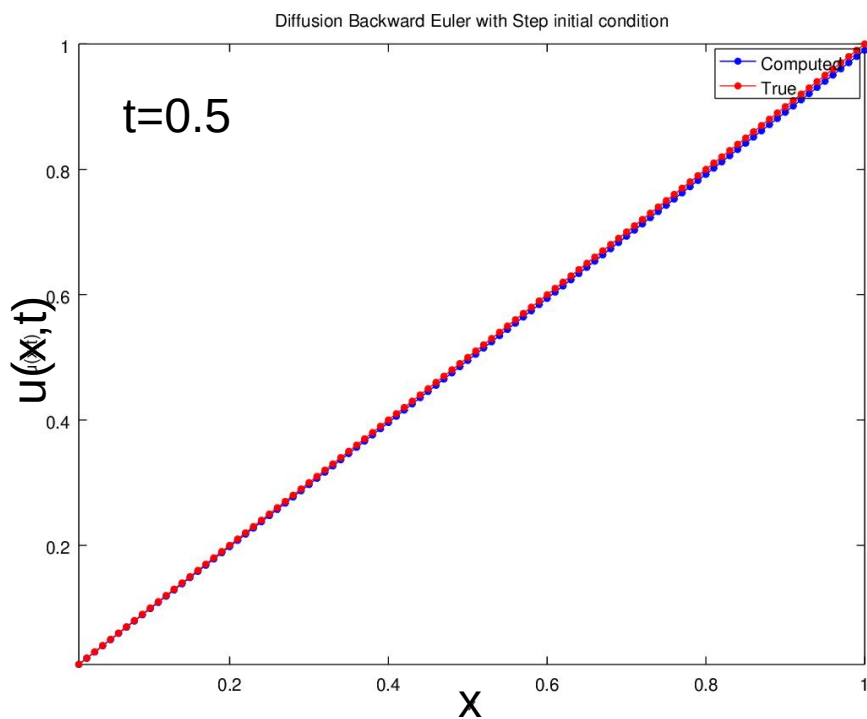
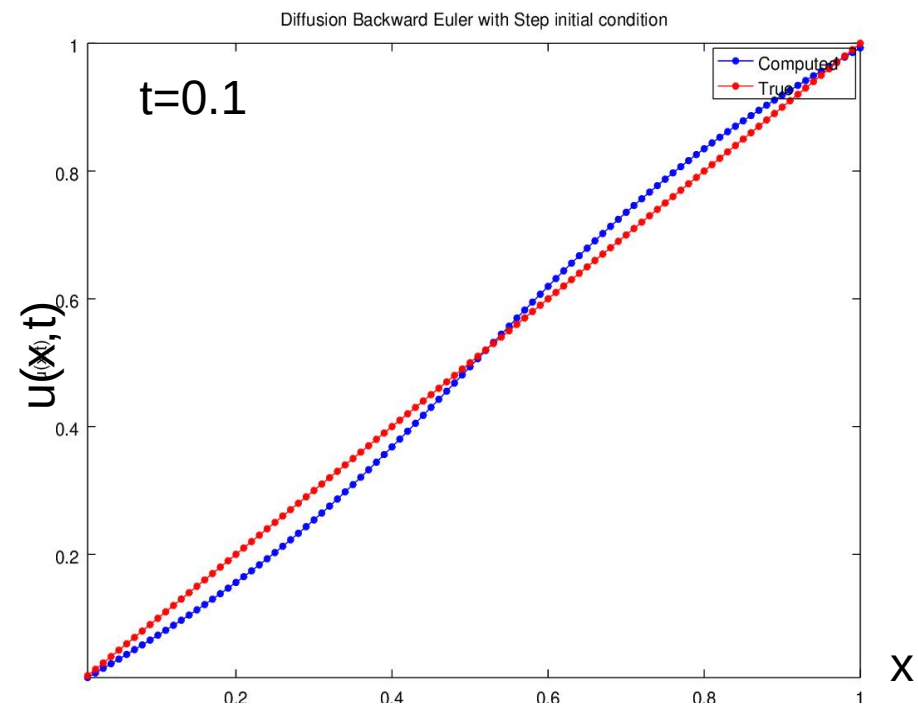
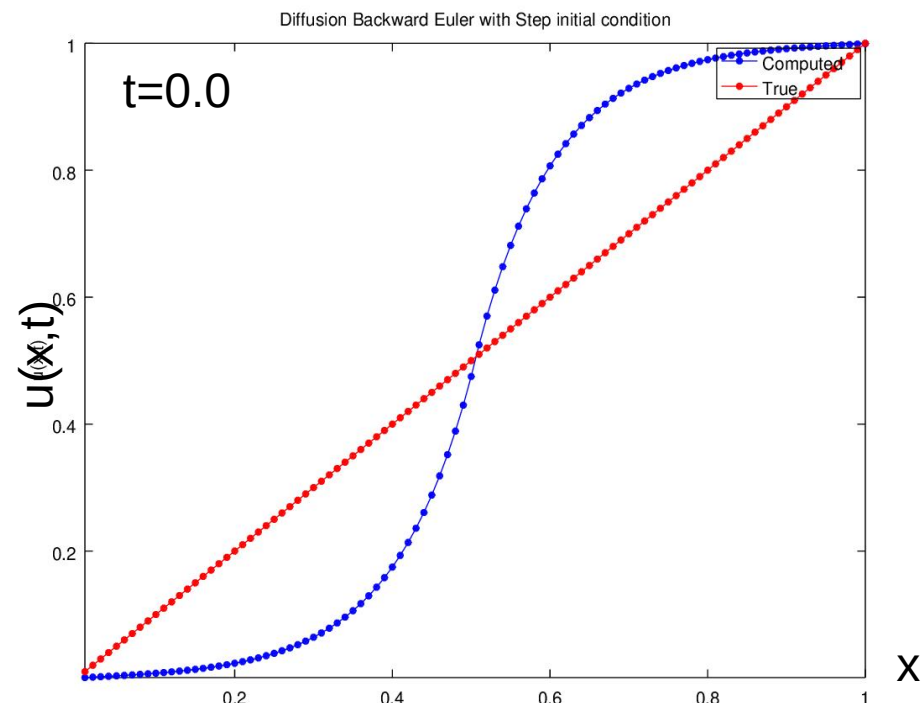
Advection Crank-Nicholson (3rd order Upwind scheme) (implicit) with $u(x,0)=\sin(\pi x)^{100}$

(B)





Diffusion Backward Euler scheme (implicit) with Step Initial condition



(D)

Diffusion Crank-Nicholson scheme (implicit) with Step Initial condition

