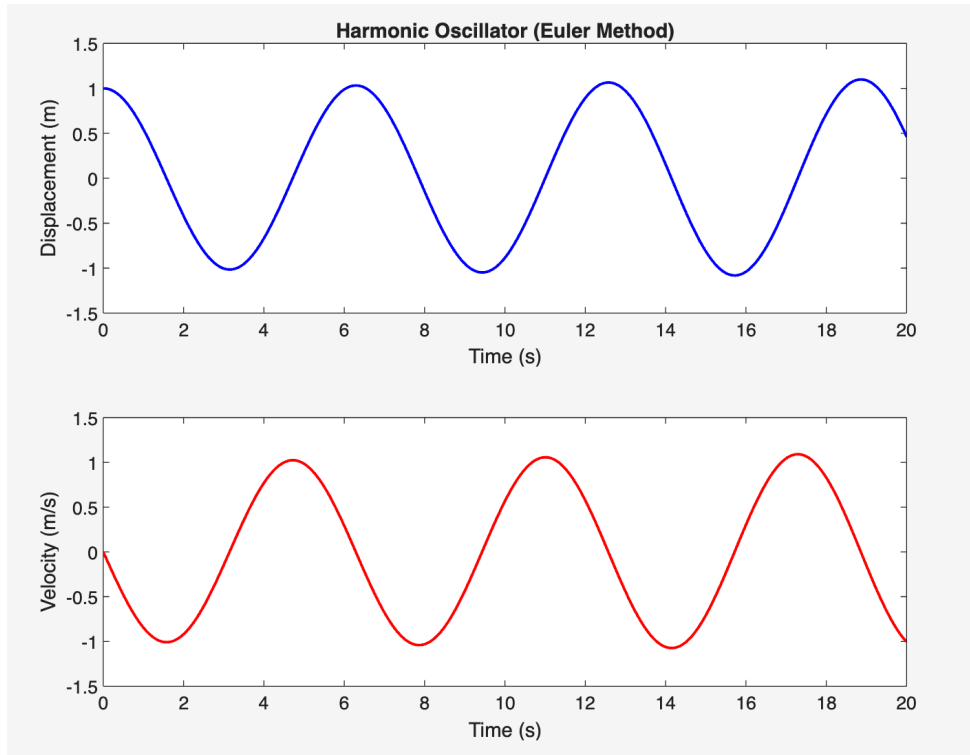
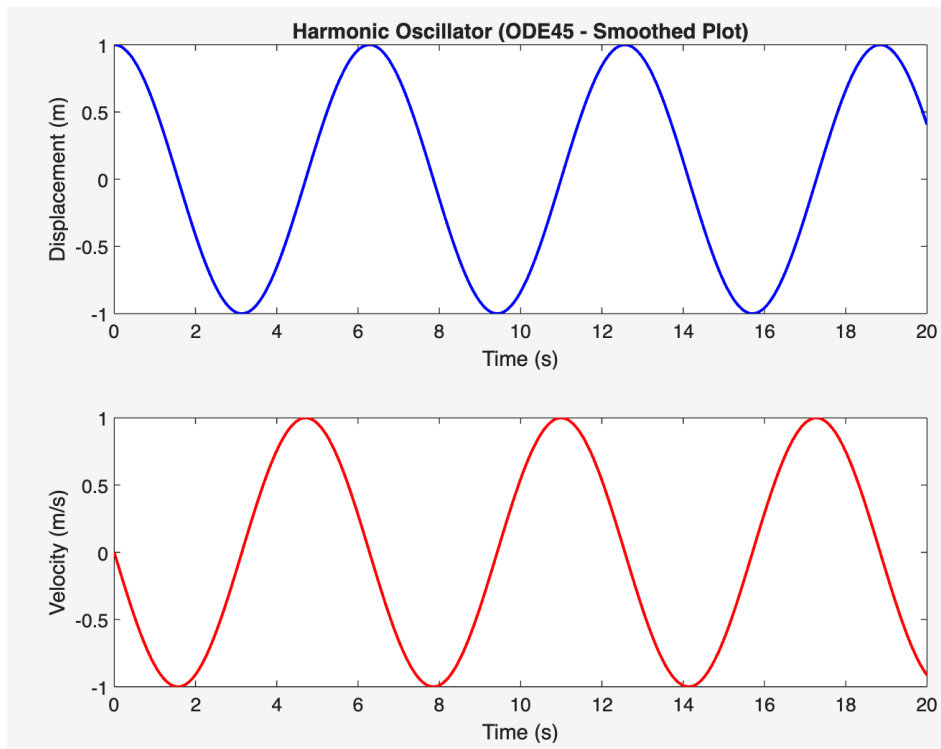


Problem 3

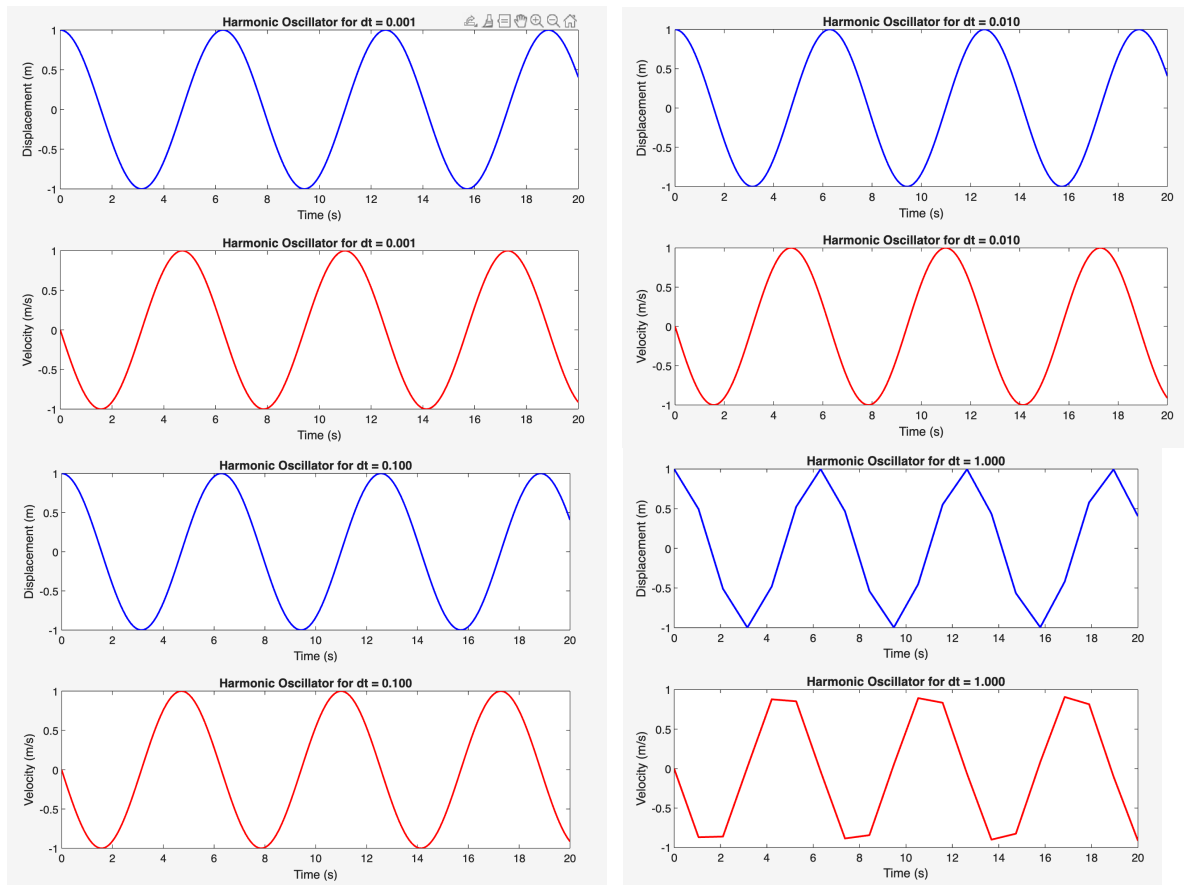
(a), (b) 1D Harmonic oscillator position and velocity (Euler method)



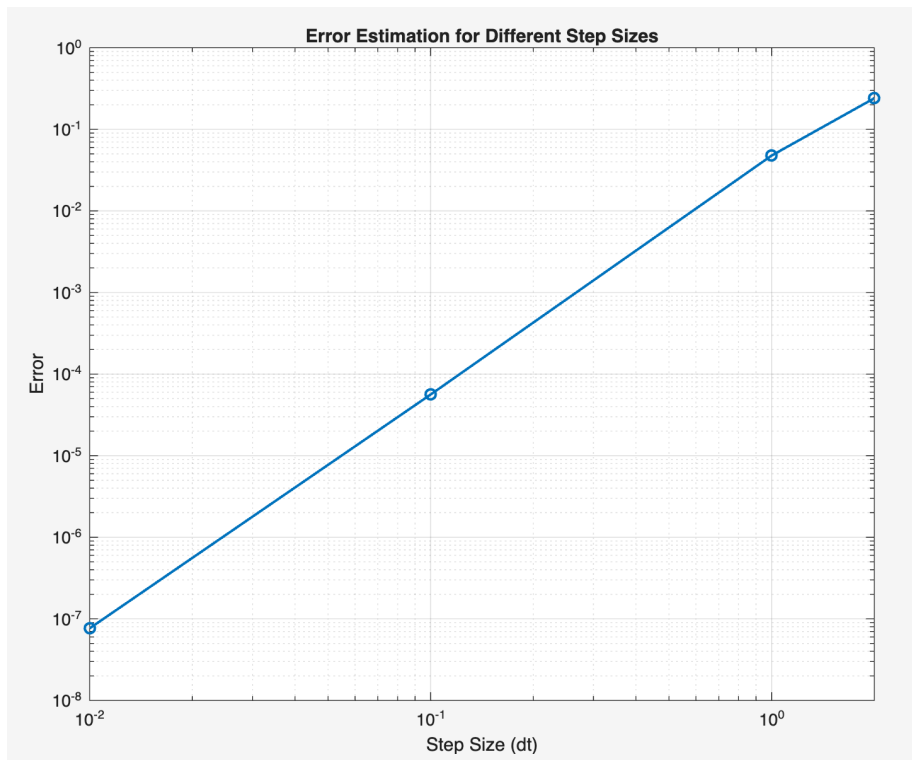
(c) ODE 45



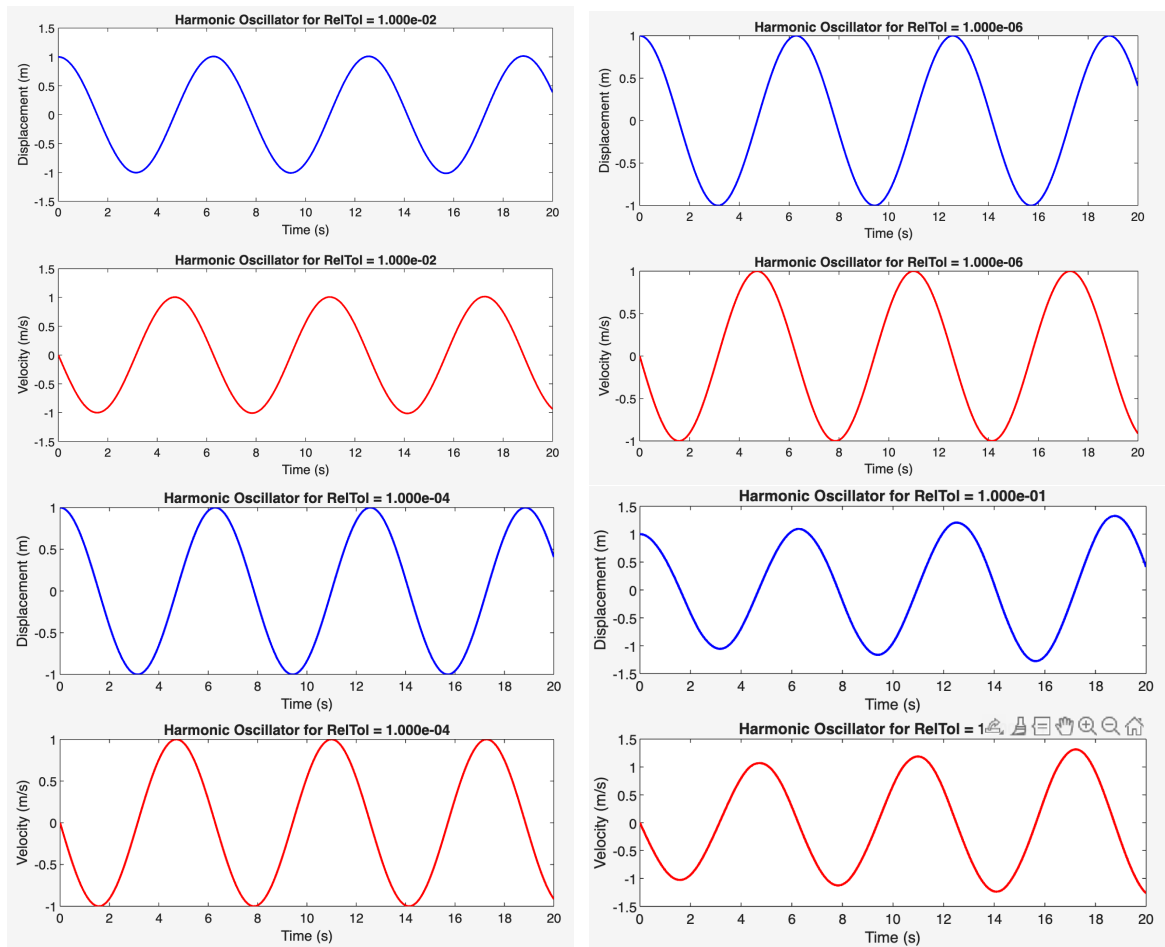
(d) ODE 45 step size comparison



Error as a function of step size:



(e) ODE 45 tolerances comparison



Error variation with tolerance

