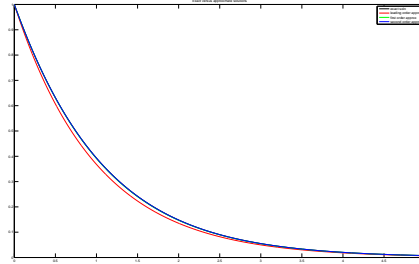
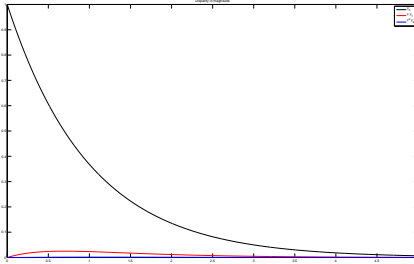


Plots for the first perturbation example, $y' = -y + \epsilon y^2$

When ϵ is small (0.1 below), there is a clear disparity in the magnitude of the leading, first and second order terms. Only a few terms are needed to get a solution close to the exact solution.



For larger ϵ (0.9 below), the disparity decreases, and more terms would be needed to get an accurate solution.

