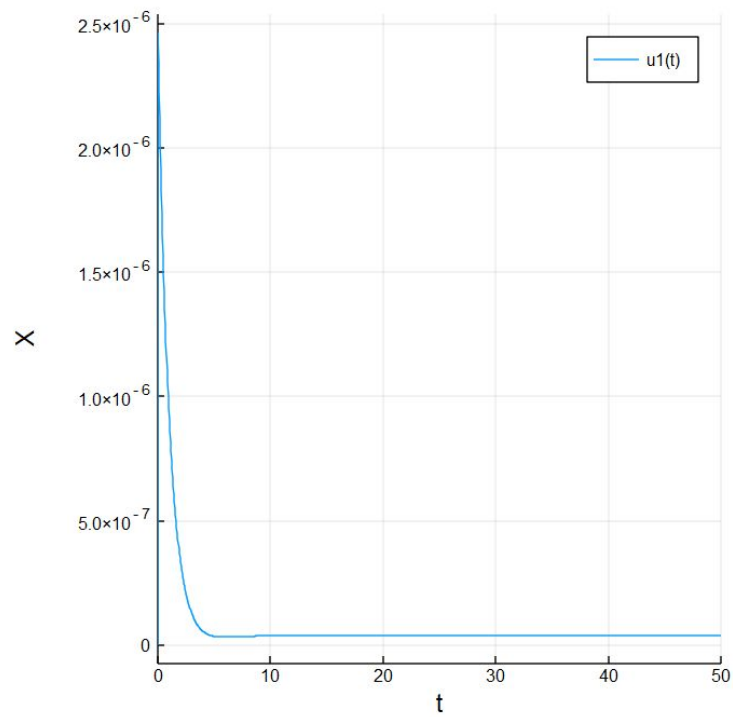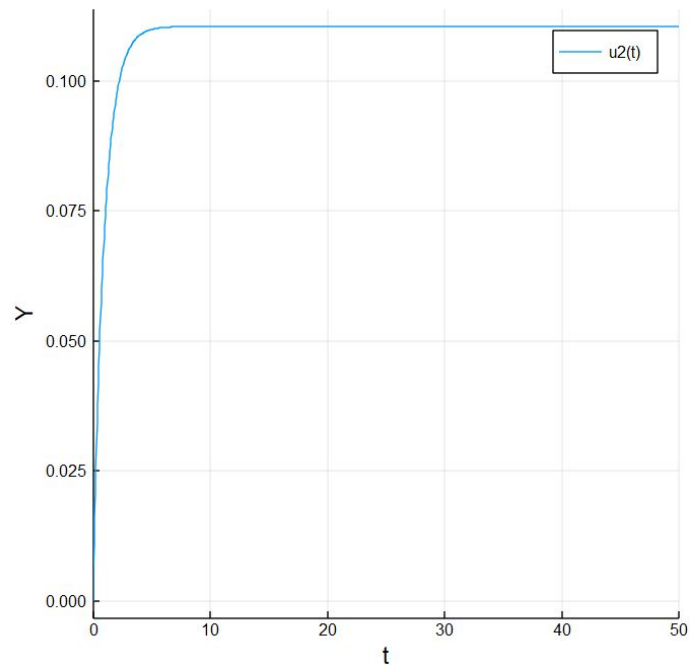Question 2, Part d

For S=0.02

X vs. t
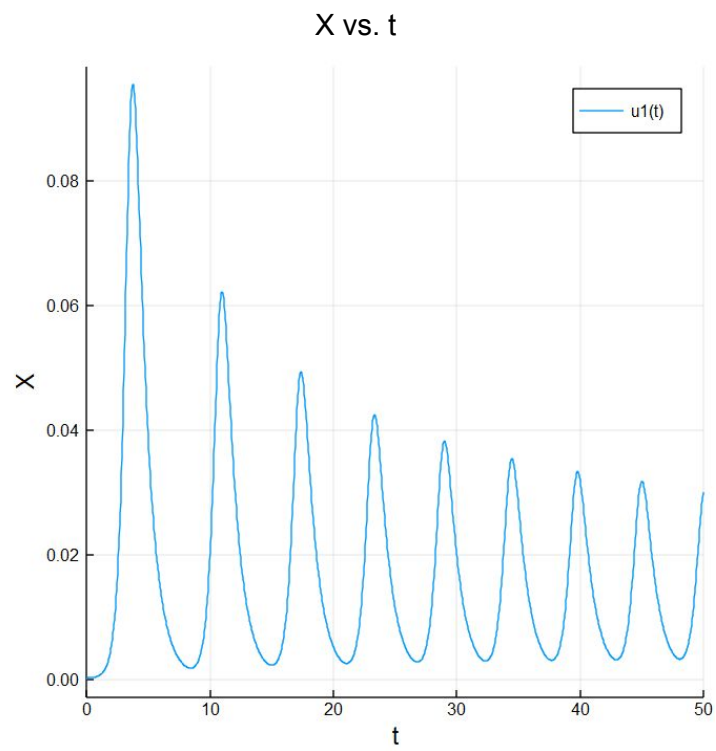

Y vs. t

Z vs. t
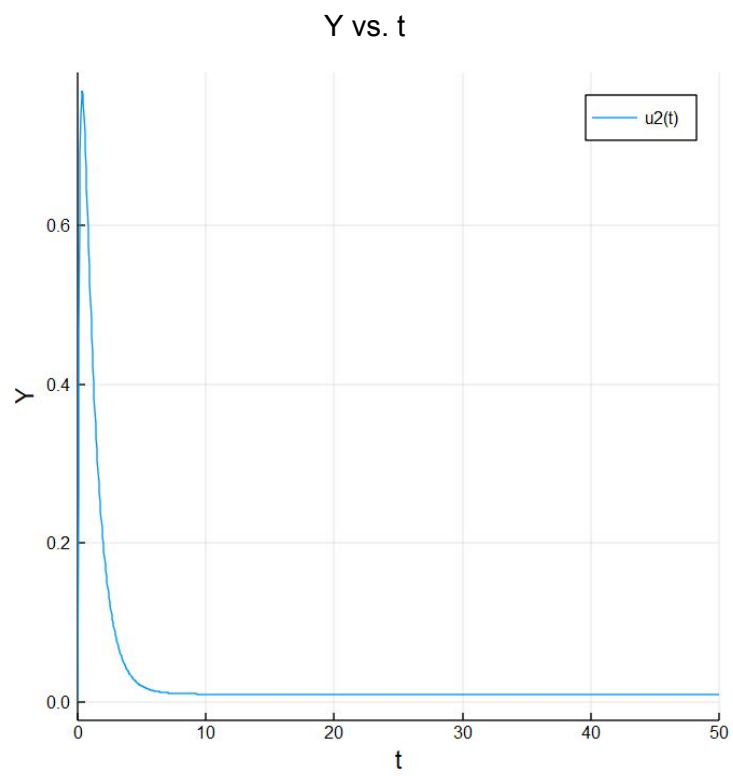
For S=10
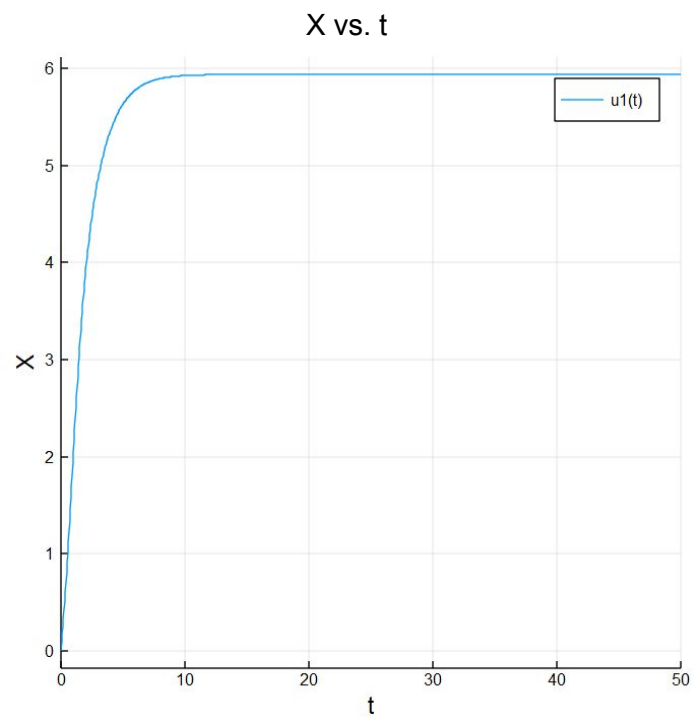

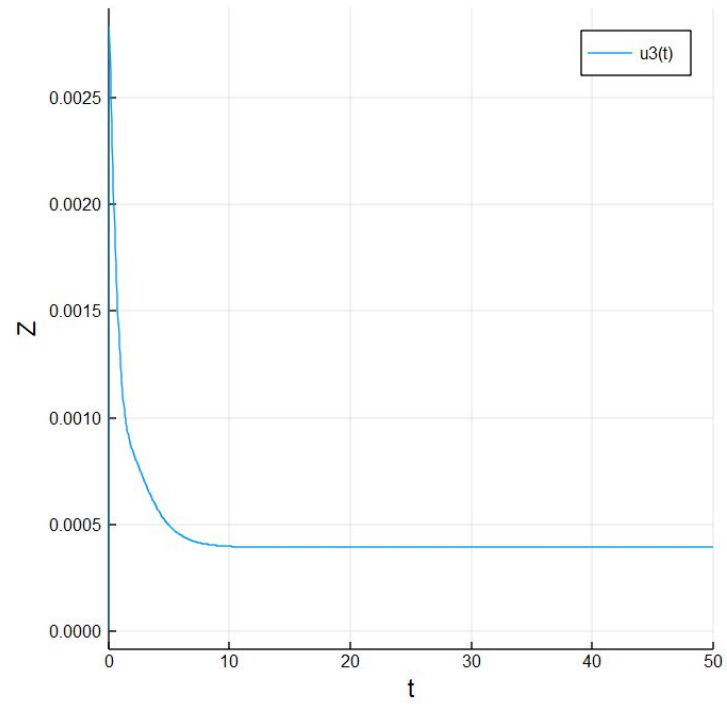X vs. t

Y vs. t

Z vs. t

For S=10^5
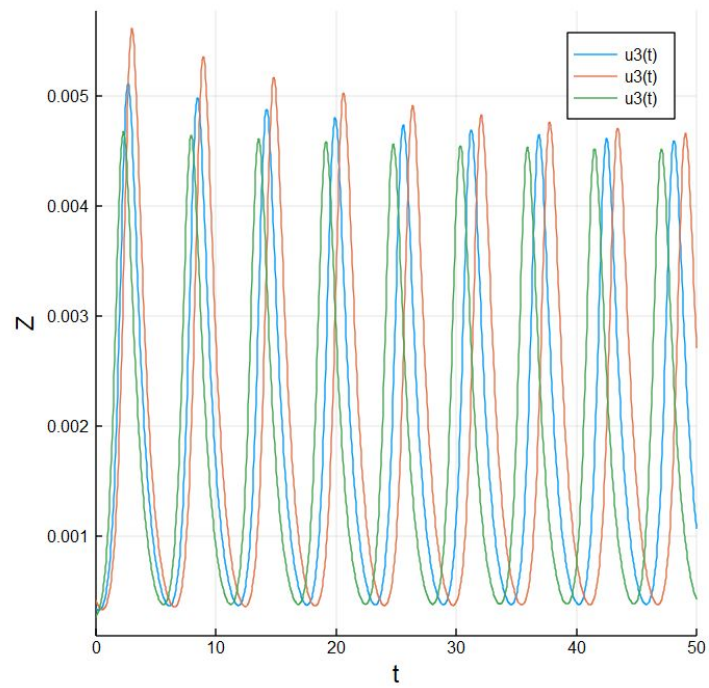
X vs. t
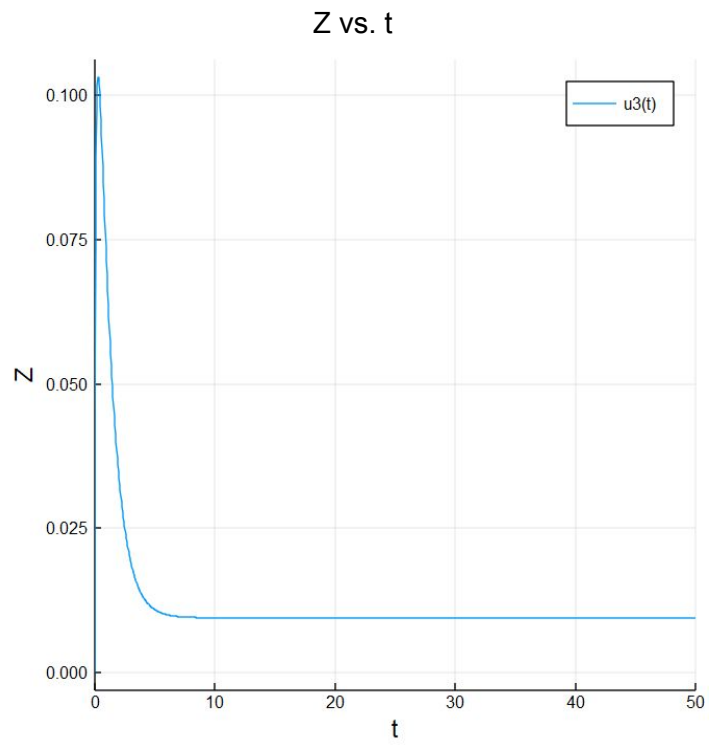
Y vs. t
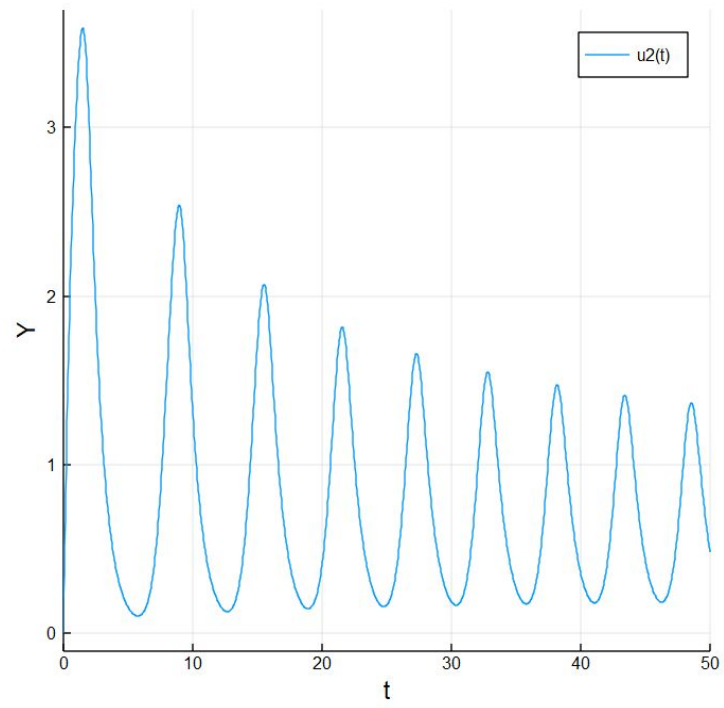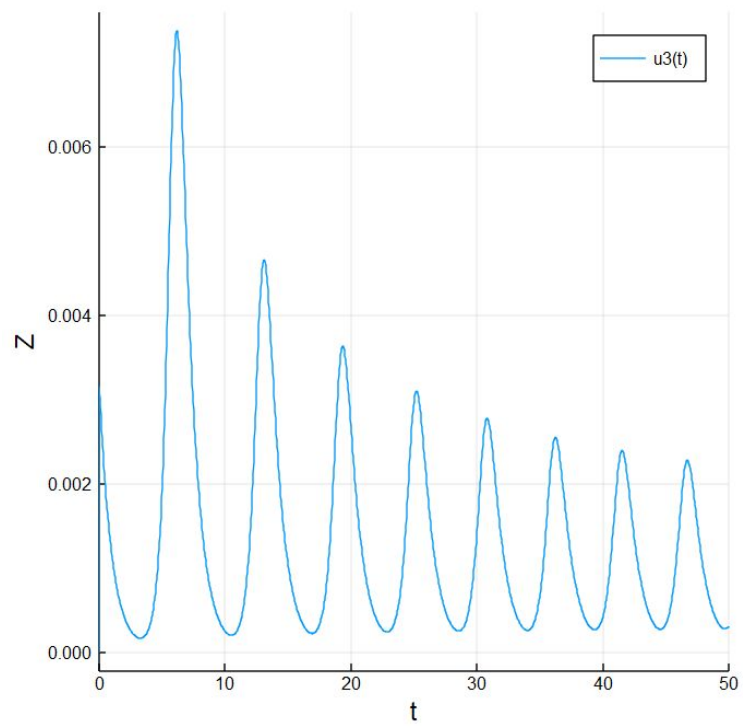
Z vs. t

Question 2 Part e

For steady state below but near the Hopf bifurcation:

For steady state above but near the saddle bifurcation: