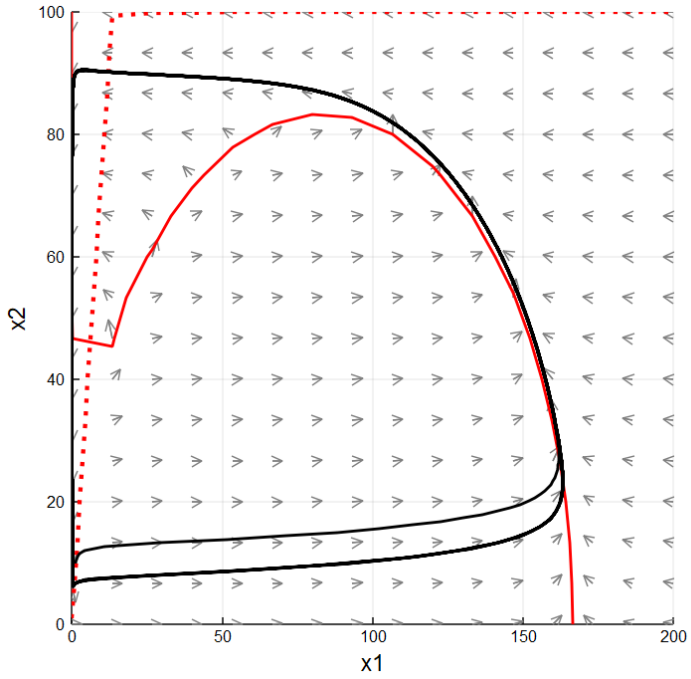
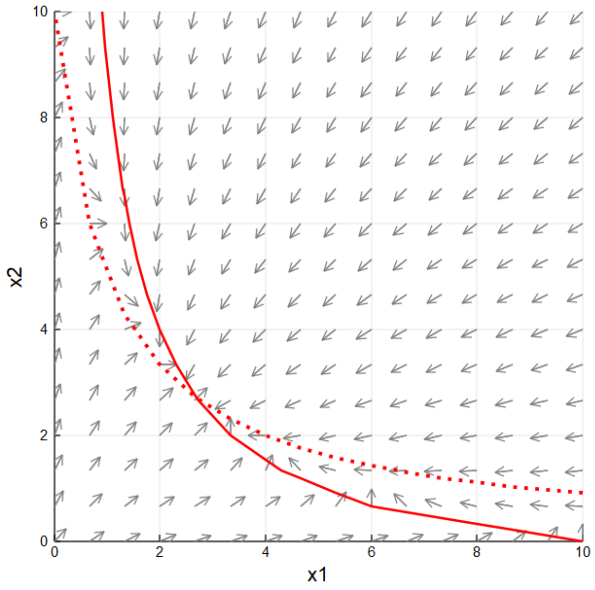
2 part B:

PLOT 1:

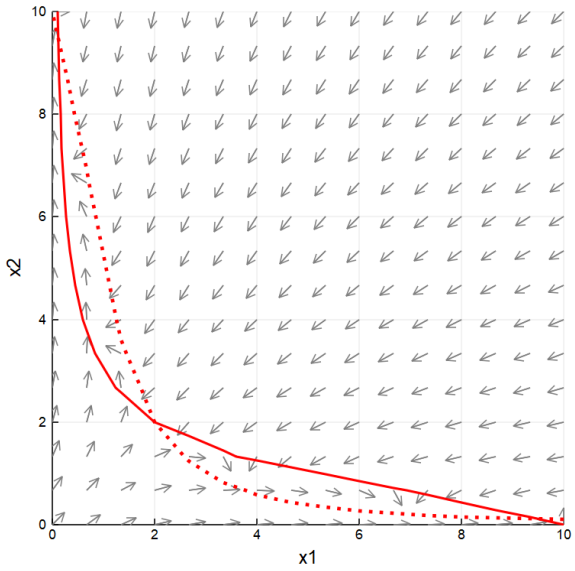


3 parts B and C:

PLOT 2: Phase Portrait n=1



PLOT 3: Phase Portrait n=2



In PLOT 2 there is one steady state in which u=v=about 2.7. In PLOT 2 there are actually 3 steady states, with one again at u=v=about 2. The other two steady states occur when x1 is close to 0 and x2 is about

9.5 and vice versa. It appears that the fixed point for n=1 is stable, whereas the three fixed points in n=2 are unstable. This is indicated by the way the arrows point relative to the fixed points. This is later confirmed in question 3 part d. The degree of cooperativity therefore alters both the number and location of fixed points, and their stability.