# CHEN3600 – Computer-Aided Chemical Engineering Spring 2012

# Chemical Engineering Department HW 5

**T.D. Placek Auburn University**

**HW 5 – Finding Roots Using fsolve**

1. (291) Solve the following set of equations:

Also, prepare a plot of x1 versus x2.

1. (298) Consider the following set of chemical reactions:

With the following equilibrium constants

Determine the steady state concentrations of all components for the following situation:

K1 = 4x10-4, K2 = 3.7x10-2, cA0 = 50, CB0 = 20, cC0 = 5, cD0 = 10

1. (126) A bungee jumpers velocity as a function of time can be represented by:

Answer the following question using SI units: Given a value of CD = 0.25 kg/m, what jumper mass would be associated with a velocity of 36 m/s at 4 s of time?