1. Find the vanLaar activity coefficient constants for the methanol-water data provided in Problem 2.D1. Then using this information, solve Problem 2.D1, only part (a.) using a numerical technique.  

   [Hint: you could minimize the function \[ \sum (p_{actual} - p_{predicted})^2 = 0 \] where \( p_{predicted} = x_a \gamma_a P_a^* + x_b \gamma_b P_b^* \), over all the data points].

2. Solve parts a) and c) of Problem 2. D1. using AspenPlus (note, AspenPlus isn’t set up to find the dimensions of the flash…i.e. part e), however, it can be used to model the dynamic behavior of the flash but one has to provide the L & D dimensions).


   Note: for the AspenPlus problems, please turn in an “Input Summary” print out of each solution.