Tips for HW9

## Problem 1

* You already solved this problem by hand using the tables in HW7
* Use Steam\_IAPWS as your working fluid
* Set up your parametric table of pressure from 2 Mpa to 0.1 Mpa. Include as part of your parametric table the quality, and temperature at the valve exit, and have EES solve your table so it fills in all the values.
* Use EES to make plots using data from your parametric table.
* Have EES create a Property Plot. Input the isotherms you want plotted, then scale the pressure axis as required.

## Problem 2

* For this you will just be using EES to call out properties using the known pair of independent intensive properties.
* To create an array table, define your variables like:
  + T[1] = 32[F]
  + x[1] = 0.2[dim]
  + p[1] = Pressure(Ammonia, T=T[1], x=x[1])
  + ……
  + p[2] = 400[psia]
  + h[2] = 1000[Btu/lbm]
  + T[2] = Temperature(Steam\_IAPWS, p=p[2], h=h[2]
  + …..

## General Tips:

* Check out example homework problems to see how to document EES problems.
* Engineering Documentation for EES problems should still have all the same components.
  + You can include a hand-written page showing the Given/Find/Sketch/Plan
  + You can include the Given and Find as a comment near the top of your code, then use the “Diagram” window to insert a figure.
  + The Check can be done as additional calculations, or typed up in the “Report” window.
  + The Reflection should be typed up in the “Report” window.
* If there are unit errors your EES solution is not correct. Your output may have the correct values, but if unit errors exist, your solution is not to be trusted.
* You will need to figure out how to print directly from EES (not screen captures or copy/paste in to MS Word). Some Citrix clients print great. Some require printing a PDF. Some just don’t work. Worst case you should be able to open your EES file in the GJ 114 computer lab and print from there.