#1
-2 for minor numerical errors
-5 if you showed no work for interpolation
-5 if you showed no work for fluid states 3 & 4!
-10 if no penalty for this.
-10 if you used a substance other than ammonia but had the correct formulas
-5 for using saturated-liquid tables at point 2
-10 if you didn’t get states 1 or 2 correct on the T-S diagram — e.g., if you thought it was

Many people used the condenser exit as state 2 instead of using the compressor exit.

#2
+2 for each of the 5 answers ( .8418, 1445.2, 1011.6, 100% , .7369 )
Plus 10 for any work at all —
I accepted “superheated vapor” instead of “quality = 100%”.
Not true that $s_2 = n s_1$.

#3
Part a: +5 for the correct formula, +5 for the number
6: ditto
-2 for minor numerical errors