Thermodynamics 1 DEN107

Problem Set 10 (due week 12, Mon 2012mar26)

Insert the SEMS homework coverpage as 1st page; this question sheet with original signatures as the 2nd page; then attach your solutions in subsequent pages. Your solutions are due before 3.30 pm on Monday March 26th 2012 in the cabinet outside the SEMS office.

By signing below I certify that I will not obtain the teaching assistant's (TA) signature for students other than myself, and that I will not forge the TA's signature on this page. Violators will be prosecuted in accordance to QMUL procedures. Please fill in the five items below.

Student Surname:	
Student Forenames:	
Student ID (9 digits):	
Student signature:	
TA confirms tutorial attendance (signature):	

50% of the assignment grade will be deducted if the TA signature above is missing

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Problem 1
Do example 11 page 121 for $T_{o,1}$ =950 K and $T_{o,2}$ =550 K.

Problem 2
Do example 1 page 126 for isentropic compressor efficiency $\eta_{c,is}$ =0.77 and isentropic turbine efficiency $\eta_{t,is}$ =0.77.

Problem 3
Do example 2 page 129 for isentropic compressor efficiency $\eta_{c,is}$ =0.89 and isentropic turbine efficiency $\eta_{t,is}$ =0.91.