Tips for HW21

1. Start out with First Law. If the process is isothermal, what is the change in Internal Energy? What do you remember about the polytropic exponent for an isothermal process? Once you have solved for Q\_12, use the boundary temperature to calculate the Q\_12/T. Then use one of the Gibbs equations to solve for the change in entropy in the system. This should give you enough to calculate the entropy production, Sp\_12
2. See section 8.4, and example 8.15
3. Simple closed-system second law analysis. It is safe to assume that once the light bulb is up to temperature that it is at steady state.