The due date for this assignment is Tuesday September 25.
Reading assignment: Section 33. of Ashcroft and Mermin

1. Determine the temperature dependence of the specific heat of the three dimensional Heisenberg model for $T \ll J$. Take only the spin wave contribution to the specific heat into account. Note, the internal energy contribution due to spin waves can be written as

$$E_{sw} = \sum_k \varepsilon(k) n(k),$$

where $\varepsilon(k)$ is the excitation energy and $n(k)$ the number of thermally excited spin waves with momentum $k$, respectively.