Review Question (1.1 - 1.4)

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Problem 1

Consider two bosons, spin 1 with m = -1,0,1
They occupy two single-particle levels with energies 0 and ϵ

(a) *Calculate the partition function*

(b) *Calculate $\langle E \rangle$ at $T = T,\ 0,\ \infty$*

(c) *Calculate $\langle S \rangle$ at $T = T,\ 0,\ \infty$*