In the name of God

Department of Physics
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ADVANCED STATISTICAL PHYSICS I

Exercise Set 3

(Date Due: 1393/08/15)

1. Using micro canonical ensemble, prove equipartition theorem.

2. Suppose that we have a system with 3-level energy. Based on Boltzmann statistics and canonical ensemble, compute the $\langle E \rangle$. What happens for $\beta \to 0$ and $\beta \to \infty$.

Good luck, Movahed