Introduction to statistical mechanics

- Explain the meaning of the term microstate in statistical mechanics.

- Explain what we mean by phase space when we use this term in statistical mechanics

- Explain what we mean when we talk about accessible microstates in the context of statistical mechanics. For example explain the meaning of the following statement "if the system has a fixed total energy E then only a subset of the microstates in phase space are accessible" by making reference to the energies of the accessible and inaccessible microstates.

- State the principle of equal a priori probabilities