Reflective Homework

1) Explain in your own words how a person with the "realist", "agnostic" and "orthodox" views about quantum mechanics will differ on issues related to the measurement of physical observables in quantum mechanics.

2) Explain some major differences between the classical mechanics and quantum mechanics formalisms.

3) The time-dependent Schroedinger equation is the most fundamental equation of quantum mechanics which describes the time-evolution of the wave function in a deterministic way, except when a measurement of a physical observable is performed. In the standard interpretation (Copenhagen interpretation or orthodox position) of quantum mechanics, explain what happens to the wave function at the instant the measurement of a physical observable is performed and what happens to the wave function (which describes the state of the system) at future times after the measurement.