NAME:

1. **<u>NEXT SUNDAY</u>, December 18, we will play a TRIVIA GAME based on what we have learned/reviewed so far.**

   <u>Please read the game description that was given to you separately.</u>
   You should <u>continue to study for it</u>: this week please <u>review Lectures ##7-11</u>.

2. The size of an atom is about $\sim 10^{-10}$m. The size of an atomic nucleus is $\sim 10^{-14}$m. **What part (<u>by volume</u>) of an atom does its nucleus take?**

   Hint: recall the formulae for the volume of a sphere (see Slide #9 of Lecture #5 for help), calculate volumes of nucleus and atom separately, then take a ratio. Alternatively, you may want to write down both volumes as formulae, then take an algebraic ratio, and only after that substitute the numbers in to calculate your answer.