NAME:

1. 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 #5 of Classwork #6 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.