
PLEASE SUBMIT YOUR WORK THROUGH GOOGLE CLASSROOM

1. The size of an atom is about $\sim 10^{-10}\text{m}$. The size of an atomic nucleus is $\sim 10^{-14}\text{m}$.
What part (by volume) of an atom does its nucleus take?
Hint: recall the formulae for the volume of a sphere (see Slide #10 of Lecture #7 for help), calculate volumes of nucleus and atom separately, then take a ratio.

2. Match the words from the *word bank* to complete the sentences:
 - a. The nucleus of an atom contains positively charged _____ .
 - b. An atom consists of positively charged nuclei and negatively charged _____ .
 - c. The nucleus of an atom contains particles with no charge called _____ .
 - d. _____ is the center-most part of an atom where the protons and neutrons are found.
 - e. The smallest building block of matter is _____ .

*Atom**Neutrons**Nucleus**Protons**Electrons*