

How Much Space Do You Take Up? Name: _____

Show your work to get credit!

1. How much do you weigh in lbs? _____ lbs
2. How much do you weigh in grams? (1 lb = 454 g) _____ g
3. Given that $1 \text{ g} = 5.02 \times 10^{22}$ atoms, calculate how many atoms are in your body. _____ atoms
4. Given that the volume of 1 atom = 2.07×10^{-23} ml, how much space do the atoms in your body take up? _____ mL
5. If the volume of the nucleus of an atom is about 1×10^{15} smaller than that of the volume of the electron cloud surrounding it, calculate how much space, just the nuclei in your body would occupy. (Divide answer from step 4 by 1×10^{15}) _____ mL