

1. What is the difference between the mass number and the exact atomic mass?
2. An atom cannot have a fraction of a neutron or a proton. Why is the exact mass of various elements not a whole number? Hint, I am not asking about the weighted average on the periodic table?
3. The sum of its parts does not equal the whole. What does that mean in regards to an atom?
4. Boron has an atomic mass of 10.81 amu according to the periodic table. However, no single atom of boron has a mass of 10.81 amu. How do you explain this?
5. The average atomic mass of Copper is 63.546amu. Which of copper's two naturally occurring isotopes is more common, Copper-63 or Copper-65?
6. Boron has two isotopes, Boron-10 and Boron-11. Which is more abundant given that the atomic mass of Boron is 10.81.
7. Calculate the atomic mass of bromine. The two isotopes of bromine have atomic masses and relative abundances of 78.92 amu (50.69%) and 80.92 amu (49.31%).
8. What is the % Abundance of Lithium-6 ( 6.015122 amu) and Lithium 7 (7.016004 amu) if the average atomic mass of lithium is 6.94.

		amu	% Abundance
Calcium	<sup>40</sup> Ca	39.962591	96.941
	<sup>42</sup> Ca	41.958618	0.647
	<sup>43</sup> Ca	42.958767	0.135
	<sup>44</sup> Ca	43.955481	2.086
	<sup>46</sup> Ca	45.953693	0.004
	<sup>48</sup> Ca	47.952534	0.187

9. Calculate the average atomic mass of Calcium.