

## Exercise 2 - Counting Subatomic Particles - Isotopes

1. Use the periodic table to find the number of protons, neutrons, and electrons for atoms of the following atoms.

Name of Element	Mass Number	Atomic Number	Protons	Neutrons	Electrons
Chlorine-37					
C-14					
$^{18}\text{O}$					
U-235					
$^{34}\text{S}$					
Iodine-131					
Li-6					
$^{22}\text{Ne}$					

2. How are isotopes of the same element similar to one another?
3. How are isotopes of the same element different from one another?
4. The unrounded masses given on the periodic table are weighted averages of all isotopes of an atom. Weighted averages are based on percentages much like you calculate your grades at school. For example, 50% tests, 25% quizzes, 25% homework. Sulfur has a mass of 32.07 according to the periodic table, what could this tell you about the percentage of sulfur-32 compared to other sulfur isotopes?