

Worksheet #3

Atomic Number, Mass Number & Isotopes

1. Atoms of the same atomic number but different mass numbers are called ?.
2. The subatomic particles found in the nucleus of an atom are ? and ?
3. The mass of atom is found in this structure: ?.
4. The region outside the nucleus of the atom, which makes up most of the volume of the atom, is occupied by ?.
5. Nearly all the mass of any atom is made up of ? and ?.
6. Atoms with the same number of protons but with different number of neutrons in the nucleus are called ?.
7. Carbon has three isotopes: carbon-12, carbon-13 and carbon-14. Give the chemical symbol for each.
8. What is the isotope symbol of an oxygen atom containing 8 protons and 8 neutrons in its nucleus?
9. How many protons, electrons and neutrons are in the following atoms:



10. Complete the following chart

Atomic Number	Mass Number	Number of protons	Number of electrons	number of neutrons	Element Symbol
7				7	
		9		10	
	39		19		
	59	27			

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Isotope Symbol	${}^{16}\text{Mg}$	P^{3-}		
Name				fluoride
Mass Number			87	19
Atomic Number			38	
Number of protons				
Number of electrons			36	
Number of neutrons		16		