

Charge and Mass Worksheet #1

1. Complete the following table:

Element & Isotope	Charge	Atomic #	# of Protons	# of Neutrons	# of Electrons	Mass #
${}^{14}_6\text{C}$	0					
${}^{12}_6\text{C}$	0					
${}^{16}_8\text{O}$	0					
	0	1		2		
${}^{31}_{15}\text{P}$	0					
${}^{90}_{38}\text{Sr}$	0					
	0	32				70
${}^{17}_8\text{O}$	0					
	0		8	10		
${}^{235}_{92}\text{U}$	0					
	0		92	146		
	0	2		2		
${}^{35}_{17}\text{Cl}$	0					
${}^{35}_{17}\text{Cl}$	-1					
${}^{23}_{11}\text{Na}$	+1					

Element & Isotope	Charge	Atomic #	# of Protons	# of Neutrons	# of Electrons	Mass #
${}^{60}_{20}\text{Ca}$	+2					
${}^{138}_{56}\text{Ba}$	0		56	82		
	0			61		108
	0			157		259
${}^{64}_{29}\text{Cu}$	+2					
	+3	21		24		
	0			11	10	
	0	15		15		

2. How do the two isotopes of ${}^{14}_6\text{C}$ and ${}^{12}_6\text{C}$ differ?

3. Arrange the following elements in order of increasing mass: W, C, I, H, K, P, Be, Na, and S.

4. Fill in the following chart:

Particle	Mass	Charge
Electron		
Proton		
Neutron		