

General Chemistry
Mr. MacGillivray
Quiz #8:

Atomic Structure and Calculations

Complete the table. All atoms are neutral. You may use a periodic table.

Element Name	Element Symbol	Atomic Number (Z)	Number of Protons	Number of Electrons	Number of Neutrons	Mass Number
Oxygen	O	8	8	8	10	18
carbon	C	6	6	6	8	14
uranium	U	92	92	92	143	235
bromine	Br	35	35	35	52	87
hydrogen	H	1	1	1	1	2

Explain the difference between mass number and atomic mass.

mass # = sum of p⁺ and n⁰ in an atom
atomic mass = weighted avg. of mass #s of the isotopes of an element
diff mass #s; or, different # of n⁰

What is the same about the composition of O-16 and O-18?

same # of p⁺

Which isotope of oxygen is probably most abundant? Explain your reasoning.

O-16. The ^{atomic mass} ~~mass~~ of

O is closer to the mass # of O-16 than it is to the mass # of O-18.