Isotopes and Atomic Mass

Fill in the blanks as outlined in the examples

Symbol	Atomic Number	Mass Number	Protons	Neutrons	Electron
$^{12}_{6}C$	6	12	6	6	6
$^{13}_{6}C$	6	13	6	7	6
$^{4}_{2}He$	2		2		2
$^{8}_{4}Be$	4	8	4	4	4
$_{20}Ca$	20	40	20		20
$^{16}_{8}O$	8		8		8
$^{17}_{9}F$	9	17	9	8	9
$_{15}P$	15	32	15		15
$_{100}Fm$	100		100	132	100
$^{28}_{10}Ne$	10	28	10	18	10
S	16		16	17	16
$^{25}_{13}Al$	13		13		13
H	1	1	1		1

Calculate the average atomic mass.

1. A sample of bromine consists of two isotopes of mass numbers 79 and 81. Isotope 79 have an abundance of 50.69% and Isotope 81 is 49.31% in abundance. What is bromine's average atomic mass? 79.98 2 u → 79.99u
2. Silicon is found in nature with 3 stable isotopes. Si – 28 at 92.23%, Si – 29 at 4.67% and Si – 30 at 3.10%. What is silicon's average atomic mass? 28.1087u
3. Calculate the average atomic mass for each element: 28.6855 u → 28.7 u

~6.9 u

a. Li-6 , 7.42% ; Li-7 , 92.58%
b. Ne-20 , 90.92% ; Ne-21 , 0.257% ; Ne-22 , 8.82%
c. Cr-50 , 4.35% ; Cr -52 , 83.79% ; Cr -53 , 9.50% ; Cr-54 , 2.36%

~20.6 u

~52.9 u

52.0|552 52.1 u