

## Chapter 4 Practice

Name \_\_\_\_\_

Period \_\_\_\_\_ Date \_\_\_\_\_

Symbol	Name	Atomic Number	Mass Number	Number of protons	Number of neutrons	Number of electrons
$^{29}_{14}\text{Si}$						
	Cobalt-58					
		28	58			
				33	40	
$^{197}_{79}\text{Au}$						
	Rhodium-103					
		78			117	
			118			50
					84	60
			1			

- An atom has 11 protons 11 electrons and 10 neutrons. What is its
  - atomic number
  - mass number
  - Name
  - charge
  - Complete symbol
- For argon-39, what is its
  - Number of protons
  - Number of neutron
  - Number of electrons
  - Mass number
  - atomic number
  - Complete symbol
- For  $^{72}_{31}\text{Ga}$  what is the
  - Number of protons
  - Number of neutron
  - Number of electrons
  - Mass number
  - atomic number
  - Name
- For cobalt-60, what is its
  - Number of protons
  - Number of neutron
  - Number of electrons
  - Mass number
  - atomic number
  - Complete symbol
- For  $^{35}_{16}\text{S}$  what is the
  - Number of protons
  - Number of neutron
  - Number of electrons
  - Mass number
  - atomic number
  - Name

1. What is average atomic mass of Lithium if 7.42% exists as  ${}^6\text{Li}$  (6.015 amu) and 92.58% exists as  ${}^7\text{Li}$  (7.016 amu)?

2. Calculate the average atomic mass of Chlorine if you know that 75.77% exists as Chlorine-35 (34.969 amu) and 24.23% exists as Chlorine-37 (36.966 amu).

3. Rubidium is a soft, silvery-white metal that has two common isotopes,  ${}^{85}\text{Rb}$  and  ${}^{87}\text{Rb}$ . If the abundance of  ${}^{85}\text{Rb}$  is 72.2% and the abundance of  ${}^{87}\text{Rb}$  is 27.8%, what is the average atomic mass of rubidium?

4. Use the following information to determine the average atomic mass of Neon

Isotope	Percent Abundance (%)	Mass (a.m.u.)
${}^{20}\text{Ne}$	90.92	19.992
${}^{21}\text{Ne}$	0.26	20.994
${}^{22}\text{Ne}$	8.82	21.991

4. Titanium has five common isotopes. Use the information below to average atomic mass of titanium?

Isotope	Percent Abundance (%)	Mass (a.m.u.)
${}^{46}\text{Ti}$	7.93	45.9526
${}^{47}\text{Ti}$	7.28	46.9518
${}^{48}\text{Ti}$	73.94	47.9480
${}^{49}\text{Ti}$	5.51	48.9479
${}^{50}\text{Ti}$	5.34	49.9448

6. Without doing any math, are there more Bromine-79 atoms or more Bromine-80 atoms on earth? Explain your reasoning. (Hint: look at the periodic table.)