

**Worksheet 2 - Atoms, Molecules and their Names**

**You must memorize the names and charges in tables 2.3-2.8.**

Use your Periodic Table to answer the following questions.

1. What is the name of each of the following Groups?

Group I \_\_\_\_\_ Group VII \_\_\_\_\_

Group II \_\_\_\_\_ Group VIII \_\_\_\_\_

The Group in the middle \_\_\_\_\_

2. The Period 3 Halogen is \_\_\_\_\_.

The Period 2 Alkaline Earth Metal is \_\_\_\_\_.

The Period 5 Noble gas is \_\_\_\_\_.

The Period 6 Alkali Metal is \_\_\_\_\_.

The lightest Transition Metal is \_\_\_\_\_.

3. Using the Periodic Table, fill in the missing information in the chart, below.

Symbol	atomic mass	protons	neutrons	electrons	charge
W	184				2+
		35	45		0
	197		118	78	
	128	52		54	

4. Which is more abundant,  $^{72}\text{Ge}$  or  $^{73}\text{Ge}$ , assuming that these are its only two isotopes?

5. In nature, 20.3% of Boron exists as Boron-10 and the remainder is Boron-11. What is the average atomic mass of Boron?

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6. Fill in the charts below with the names and formulas of **ionic** compounds, formed by reactions between metals and non-metals.

Formula	Name
Ca(OH) <sub>2</sub>	
Cs <sub>2</sub> O	
Fe <sub>2</sub> S <sub>3</sub>	
H <sub>2</sub> SO <sub>3</sub>	
CoP	

Name	Formula
strontium nitride	
tin(IV) oxide	
cobalt(III) carbonate	
aluminum perchlorate	
magnesium nitrite	

7. Fill in the names of the following **covalent** compounds, formed between non-metals.

Formula	Name
N <sub>2</sub>	
N <sub>2</sub> O <sub>4</sub>	
N <sub>2</sub> O	
HBr	
NO	

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8. Decide if each of the following is ionic or covalent, and fill in the missing information.

Name	Formula	ionic or covalent
	SF <sub>2</sub>	
mercury(II) phosphate		
	CaS	
diphosphorus decachloride		
carbon monoxide		

9. Decide what is **wrong** with the following names, then give the correct name and formula.

Name	Formula	systematic name
hydrogen phosphate		
sulfur oxide		
rubidium difluoride		
iron sulfate		
barium(II) nitrite		