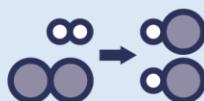




## Chemical Formulae

1. Write the correct chemical formula for the following substances:
  - a. Water
  - b. Carbon dioxide
  - c. Oxygen gas
  - d. Hydrogen gas
  - e. Hydrochloric acid
  
2. Determine how many atoms of each element are present in the following formulae and name each compound. The first has been done for you:
  - a. NaCl (sodium chloride) contains 1 atom of sodium and 1 atom of chlorine
  - b. MgO \_\_\_\_\_ contains  
\_\_\_\_\_
  - c. SO<sub>2</sub> \_\_\_\_\_ contains  
\_\_\_\_\_
  - d. Na<sub>2</sub>S \_\_\_\_\_ contains  
\_\_\_\_\_
  - e. Fe<sub>2</sub>O<sub>3</sub> \_\_\_\_\_ contains  
\_\_\_\_\_
  - f. AgNO<sub>3</sub> \_\_\_\_\_ contains  
\_\_\_\_\_





3. Determine how many atoms of each element are present in the following compounds.

a. Sulfuric acid,  $\text{H}_2\text{SO}_4$ , contains

---

b. Barium hydroxide,  $\text{Ba}(\text{OH})_2$ , contains

---

c. Glucose,  $\text{C}_6\text{H}_{12}\text{O}_6$ , contains

---

d. Ethanol,  $\text{C}_2\text{H}_5\text{OH}$ , contains

---

e. Nitric acid,  $\text{HNO}_3$ , contains

---

f. Potassium hydroxide,  $\text{KOH}$ , contains

---

4. The formula for methane is **CH<sub>4</sub>**.

a. Is methane an element or a compound? Explain your answer.

---

---

b. Look at the formula. What is the **ratio** of carbon atoms to hydrogen atoms?

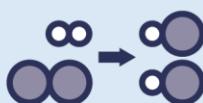
---

---

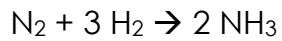
c. Describe the **molecule** in words.

---

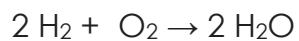
---



5. Describe the following equation in words (NH<sub>3</sub> is ammonia).



6. Describe the following equation in words.



**Stretch:** Circle all the compounds from Questions 2 and 3 that would form molecules.

