



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

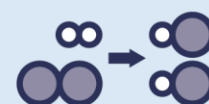
b. MgO _____ contains

c. SO_2 _____ contains

d. Na_2S _____ contains

e. Fe_2O_3 _____ contains

f. AgNO_3 _____ contains





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

a. Sulfuric acid, H_2SO_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, HNO_3 , contains

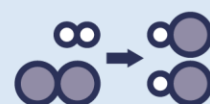
f. Potassium hydroxide, KOH , contains

4. The formula for methane is **CH_4** .

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

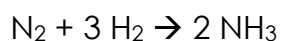
b. Look at the formula. What is the **ratio** of carbon atoms to hydrogen atoms?

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

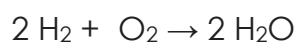




5. Describe the following equation in words (NH₃ is ammonia).



6. Describe the following equation in words.



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

