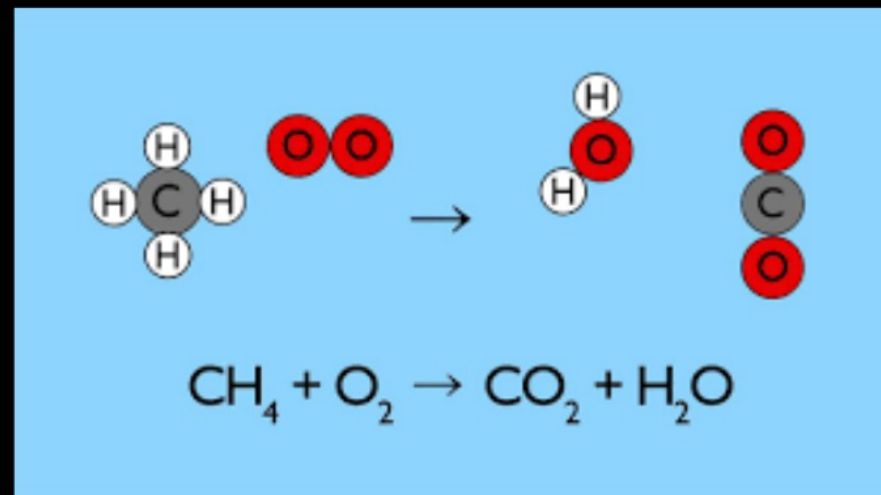


4.28.20

Types of Reaction: Conservation of Mass

Today's Objectives:

- Learn reaction abbreviations
- Learn the Conservation of Mass Law
- Solve CoM problems



Reaction Abbreviations

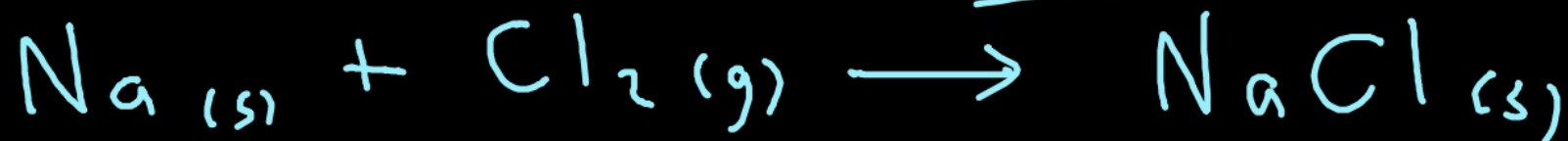
(s) Solid

(g) Gas

(l) Liquid

(aq) Aqueous
"Dissolved in Water"

Solid sodium metal reacts with chlorine gas yields solid sodium chloride



Law of Conservation of Mass:

In a chemical reaction, mass is never Created or Destroyed.

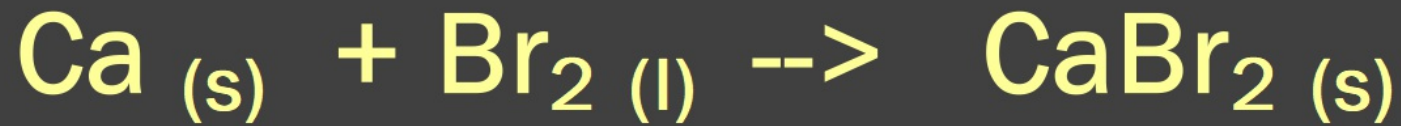
Total Mass of Reactants = Total Mass of Products

Sample Question:

For a large catering order, a restaurant makes PBJ sandwiches. They use 8 lbs of PB, 6 lbs of J, and 10 lbs of bread. How much is the combined weight of all the sandwiches?

$$PB_{(2)} + J_{(2)} + B_{(3)} \rightarrow PBJ_{(5)}$$

$$8 \text{ lbs} + 6 \text{ lbs} + 10 \text{ lbs} = 24 \text{ lbs}$$



$$50 + ? = 75$$

25 grams

Calcium: 50 grams

Bromine Liquid: ??????

Calcium Bromide: 75 grams