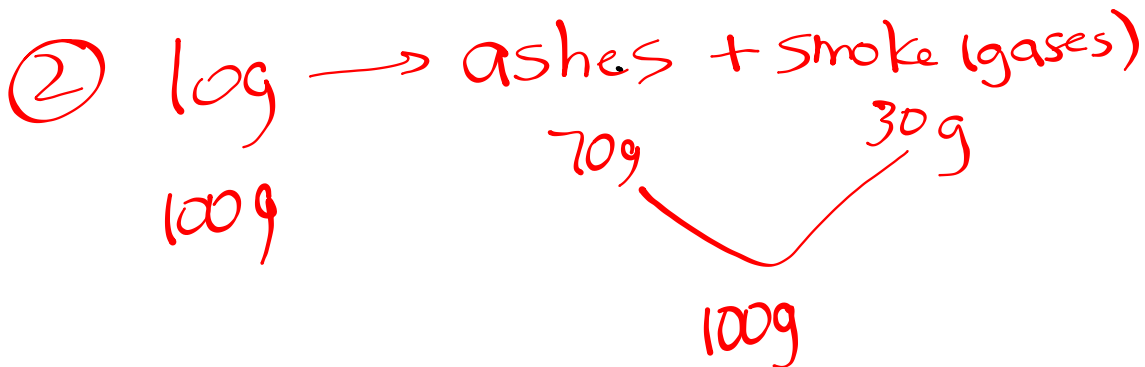
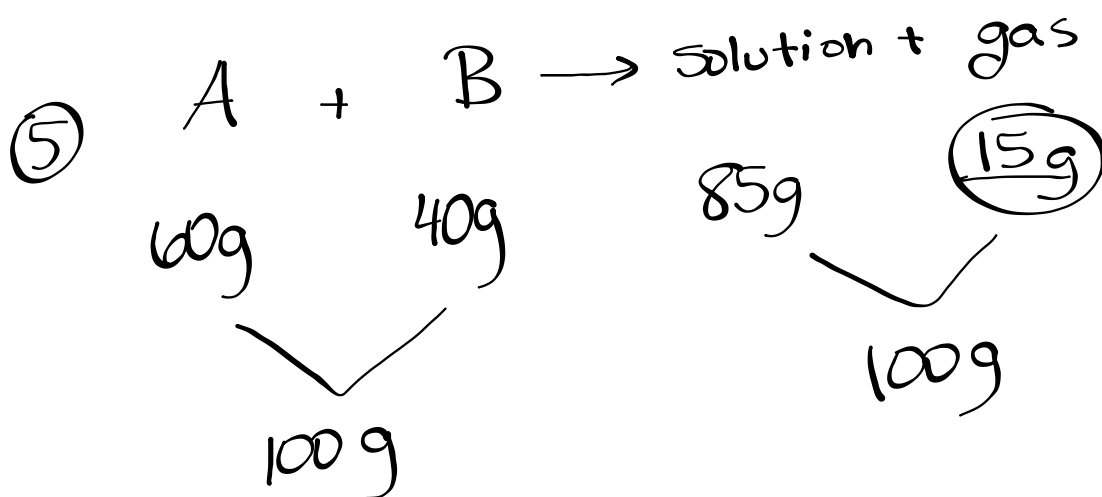
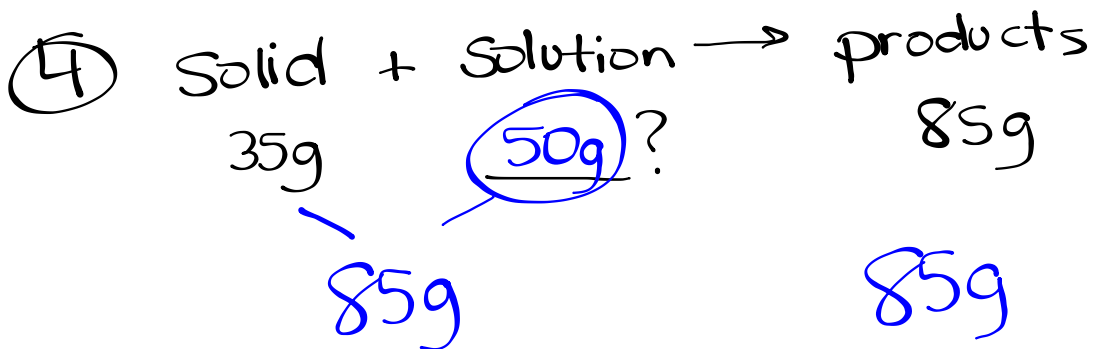
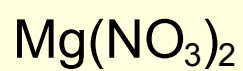


p. 223 #1-7



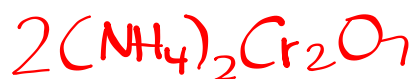
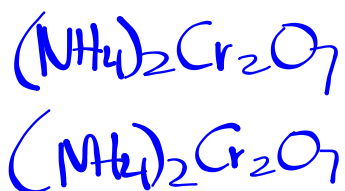
## Counting Atoms



## Counting Atoms Sheet



$$\begin{array}{r} \text{N} \rightarrow 1 \\ \text{H} \rightarrow 7 \\ \text{C} \rightarrow 2 \\ \text{O} \rightarrow 2 \\ \hline 12 \end{array}$$



$$\begin{array}{r} \text{N} \rightarrow 4 \\ \text{H} \rightarrow 16 \\ \text{Cr} \rightarrow 4 \\ \text{O} \rightarrow 14 \\ \hline 38 \end{array}$$

## **Law of Conservation of Mass**

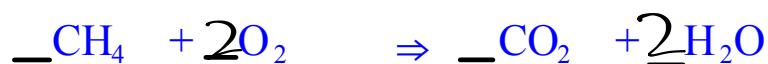
In a chemical reaction, the total mass of the reactants is always equal to the total mass of the products.

# Balancing Chemical Equations

## *Skeleton Chemical Equation*

Represents the chemical reaction, connecting the reactants to the products.

Ex. methane + oxygen  $\Rightarrow$  carbon dioxide + water

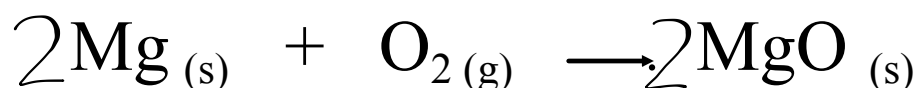


Count the Atoms!

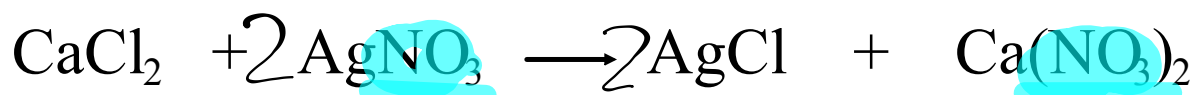
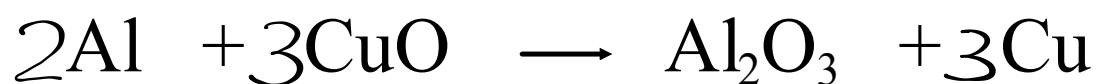
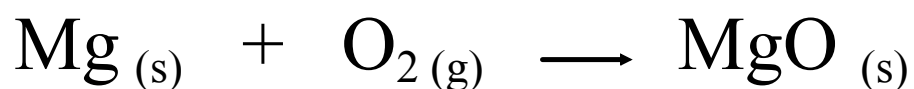
ATOM	REACTANTS	PRODUCTS
C	1	1
H	4	2
O	2	3

## Tips for balancing chemical equations:

- You can only add coefficients (number in front of formula)
- Balance each atom individually, unless it appears to be a polyatomic compound
- Choose the 'easy' atoms first



Balance the following chemical equations:



# Homework

## P. 229 #1-3d

