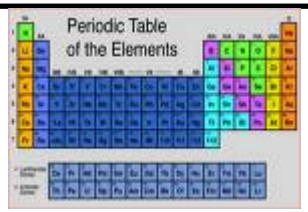
Mass of A in grams

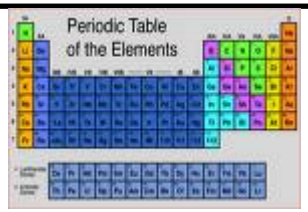
Atomic mass or formula mass if it's a compound (periodic table)



Number of grams in each mole of the substance

Mass of B in grams

Atomic mass or formula mass if it's a compound (periodic table)



Number of grams in each mole of the substance

Volume of the gas at STP, 1 atm, 0 degrees C

1 mole of a gas at STP has a volume of 22.4 L

#Moles of A

Coefficients in the *balanced* chemical equation: $\mathbf{2}H_2 + O_2 \longrightarrow \mathbf{2}H_2O$
2 moles of hydrogen reacts with 1 mole of oxygen to yield 2 moles of water.

#Moles of B

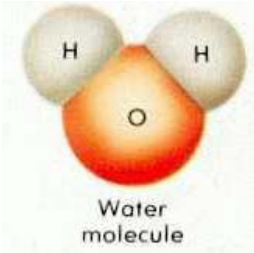
1 mole of a gas at STP has a volume of 22.4 L

Volume of the gas at STP, 1 atm, 0 degrees C

6.02×10^{23} atoms or molecules per mole

6.02×10^{23} atoms or molecules per mole

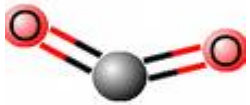
Number of particles of A (number of atoms if it's an element)



Number of atoms in the molecule (example: 2 hydrogens per 1 water molecule)

Number of atoms in the compound

Number of particles of B (number of atoms if it's an element)



Number of atoms in the molecule (example: 2 oxygens per 1 CO_2 molecule)

Number of atoms in the compound