Introductory Chemistry formula sheet

Density: $D = \dfrac{g}{ml} = \dfrac{mass\ (g)}{volume\ (ml)}$ Protons + electrons = 0 Protons + neutrons = atomic mass

Atomic mass = $\Sigma[fraction\ isotopes * mass\ isotopes]$ $\qquad \nu = \dfrac{c}{\lambda}$

1)Aplha (α) radiation: particle = $_2^4He$; Parent Nucleus = Daughter nucleus + α particle

2)Beta (β) radiation: β particle = $_{-1}^{0}e$; Parent nucleus = Daughter nucleus + β particle

3)Gamma (γ) radiation: Gamma radiation: particle = $_0^0\gamma$

Kelvin (K) = $^{\circ}$C + 273.15 Degree Celcius $^{\circ}$C = $\dfrac{5}{9}$ [$^{\circ}$F - 32] Fahrenheit F = $\dfrac{9}{5}$[$^{\circ}$C] +32

Acid + Base→ salt + water Arrhenius Acid – Substance that produces hydrogen [H$^+$] ion in solution.

Arrhenius Base – Substance that produces hydroxide [OH$^-$] ion in solution.

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Gases
$P_1V_1 = P_2V_2$
$\dfrac{V_1}{T_1} = \dfrac{V_2}{T_2}$
$\dfrac{P_1V_1}{T_1} = \dfrac{P_2V_2}{T_2}$

$$c = 2.99 * 10^8 \frac{m}{s}$$

$1\ Calorie\ (Cal) = 1000\ calories\ (cal) = 4184\ J$

$1\ kilowatt - hour\ (kWh) = 3.6 * 10^6\ J$

$1\ atm = 760\ mmHg = 760\ torr$

Oxidation is defined as:	Reduction is defined as:
-Gain of Oxygen	-loss of Oxygen
-loss of Hydrogen	-gain of Hydrogen
-loss of electrons	-gain of electrons

- Element/Compound oxidize is reducing agent

- Element/Compound reduce is oxidizing agent