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How to learn valency easily

(For class IX & X)

STEP -1 Learn and memorize the valency of some common element

H=1, O=2, Cl=1

STEP -2 Learn and memorize the formula of some common compound.

H_2O, H_2SO_4, CaO, HCl, NaCl

STEP -3 Remember "Valency is written cross" For A_nB_m valency of A=m and valency of B=n

Now see and learn like written below

Name of Compounds	Formula of compounds	Valency of first element	Valency of second element
Water	H_2O	H=1	O=2
Hydrogen chloride	HCl	H=1	Cl=1
Sodium chloride	NaCl	Na=1	Cl=1
Sodium Bromide	NaBr	Na=1	Br=1
Calcium chloride	$CaCl_2$	Ca=2	Cl=1
Magnesium Bromide	$MgBr_2$	Mg=2	Br=1
Zinc Bromide	$ZnBr_2$	Zn=2	Br=1
Zinc Sulphide	ZnS	Zn=2	S=2
Water	H2O	H=1	O=2
Calcium oxide	CaO	Ca=2	O=2
Aluminium oxidess	Al_2O_3	Al=3	O=2

Now you are able to tell valency of Barium in $BaCl_2$, or valency of Phosphorus in P_2O_5.

Valency of some polyatomic ions

Name of Compound	Formula of Compound	Valency of poly atomic ion	Valency of other element
Ammonium chloride	NH_4Cl	NH_4=1	Cl=1
Calcium Carbonate	$CaCO_3$	CO_3=2	Ca=2
Sulphuric acid	H_2SO_4	SO_4=2	H=1
Aluminium sulphate	$Al_2(SO_4)_3$	SO_4=2	Al=3
Phosphoric acid	H_3PO_4	PO_4=3	H=1
Sodium Nitrate	$NaNO_3$	NO_3=1	Na=1
Calcium hydroxide	$Ca(OH)_2$	OH=1	Ca=2
Oxalic acid	$H_2C_2O_4$	C_2O_4=2	H=1
Calcium bi carbonate	$Ca(HCO_3)_2$	HCO_3=2	Ca=2
Acetic Acid	CH_3COOH	CH_3COO=1	H=1
Sodium Acetate	CH_3COONa	CH_3COO=1	Na=1

Now you are able to tell valency of(NO_3) Ion in $NaNO_3$,Valency of Aluminium In $Al(OH)_3$.

Note–Case of variable valencies are not discussed here.

Monoatomic Cation

Charge / Valency	Name	Ion
1+	Hydrogen	H^+
	Lithium	Li^+
	Sodium	Na^+
	Potassium	K^+
	Silver	Ag^+
2+	Beryllium	Be^{2+}
	Magnesium	Mg^{2+}
	Calcium	Ca^{2+}
	Strontium	Sr^{2+}
	Barium	Ba^{2+}
3+	Aluminum	Al^{3+}

Monoatomic Anions

Charge / Valency	Name	Ion
1^-	Hydride	H^-
	Fluoride	F^-
	Chloride	Cl^-
	Bromide	Br^-
	Iodide	I^-
2^-	Oxide	O^{2-}
	Sulfide	S^{2-}
3^-	Nitride	N^{3-}
	Phosphide	P^{3-}

Polyatomic Ions

Name	Ion
Acetate	CH_3COO^-
Ammonium	NH_4^+
Bromate	BrO_3^-
Carbonate	CO_3^{2-}
Chlorate	ClO_3^-
Chlorite	ClO_2^-
Chromate	CrO_4^{2-}
Cyanide	CN^-
Dichromate	$Cr_2O_7^{2-}$
Dihydrogen Phosphate	$H_2PO_4^-$
Hydrogen Carbonate (or Bicarbonate)	HCO_3^-
Hydrogen Phosphate	HPO_4^{2-}
Hydrogen Sulfate (or bisulfate)	HSO_4^-
Hydrogen Sulfide	HS^-
Hydroxide	OH^-
Hypochlorite	ClO^-
Iodate	IO_3^-
Nitrate	NO_3^-
Nitrite	NO_2^-
Oxalate	$C_2O_4^{2-}$
Perchlorate	ClO_4^-
Permanganate	MnO_4^-
Peroxide	O_2^{2-}
Phosphate	PO_4^{3-}
Silicate	SiO_4^{2-}
Sulfate	SO_4^{2-}
Sulfite	SO_3^{2-}