

Polyatomic Ions To Memorize

First Exam		Second Exam	
NH_4^+	ammonium	NO_2^-	nitrite
H_3O^+	hydronium	SO_3^{2-}	sulfite
Hg_2^{2+}	mercurous ion / mercury(I) ion	PO_3^{3-}	phosphite
OH^-	hydroxide	ClO_2^-	chlorite
O_2^{2-}	peroxide	ClO^-	hypochlorite
CN^-	cyanide	ClO_4^-	perchlorate
NO_3^-	nitrate	OCN^-	cyanate
ClO_3^-	chlorate	MnO_4^-	permanganate
BrO_3^-	bromate	$\text{C}_2\text{H}_3\text{O}_2^-$	acetate (also OAc^- or CH_3CO_2^-)
IO_3^-	iodate	$\text{C}_2\text{O}_4^{2-}$	oxalate
SO_4^{2-}	sulfate	CrO_4^{2-}	chromate
CO_3^{2-}	carbonate	$\text{Cr}_2\text{O}_7^{2-}$	dichromate
HCO_3^-	hydrogen carbonate (bicarbonate)		
PO_4^{3-}	phosphate		

Metric prefixes:

Factor	Prefix	Symbol	Example	Example
10^9	giga	G	1 Gm = 1×10^9 m	
10^6	mega	M	1 Mm = 1×10^6 m	
10^3	kilo	k	1 km = 1000 m	
10^{-1}	deci	d	1 dm = 0.1 m	1 m = 10 dm
10^{-2}	centi	c	1 cm = 0.01 m	1 m = 100 cm
10^{-3}	milli	m	1 mm = 0.001 m	1 m = 1000 mm
10^{-6}	micro	μ	1 μm = 10^{-6} m	1 m = 1×10^6 μm
10^{-9}	nano	n	1 nm = 10^{-9} m	1 m = 1×10^9 nm
10^{-12}	pico	p	1 pm = 10^{-12} m	1 m = 1×10^{12} pm

Diatomic Elements: H_2 , N_2 , O_2 , F_2 , Cl_2 , Br_2 , I_2

Avogadro's Number:

$N_A = 6.022 \times 10^{23}$ things/mole