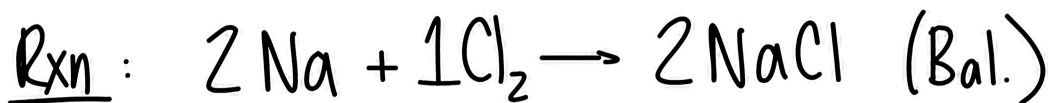
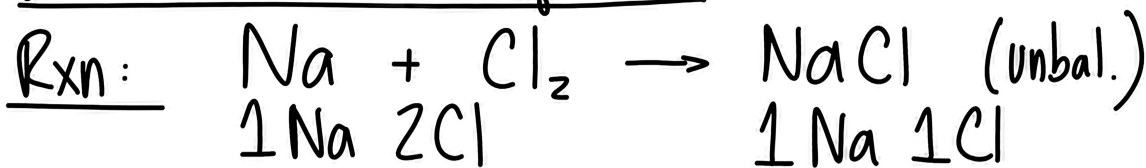


Balanced Chemical Equations

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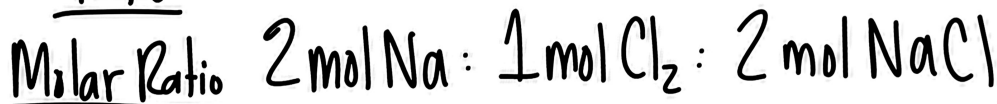
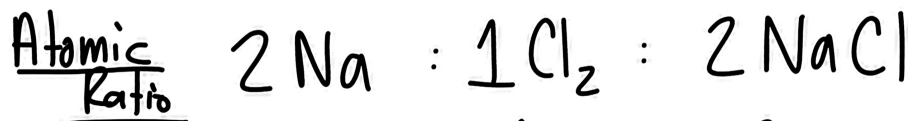
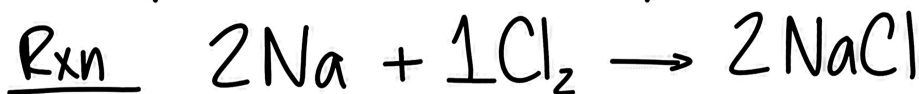


Ratios of Part. 2 atoms 1 atom 2 ionic compounds
in bal. equation

Molar Ratio

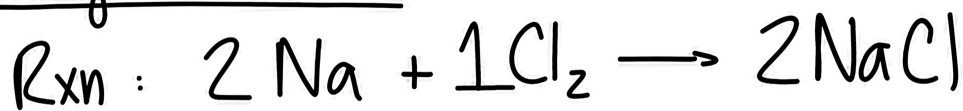
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Ratio of mol reactants to mol products in bal. eqn.



Allows comparing quan. of reactants and products (mass atoms Volume)
(#)

Using Molar Ratio



Molar Ratio: 2 mol : 1 mol : 2 mol (A → B)

Stoichiometry

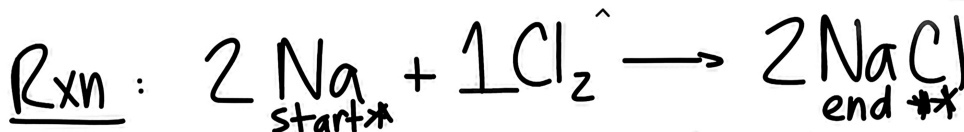
Using molar ratio to compare
quan. of reactants and products

Start A

Mass A
A (count)
Volume A

end B

Mass B
B (count)
Volume B



Molar Ratio: 2 mol : 1 mol : 2 mol

3.21 mol Na^{*}, convert (→)
to mol NaCl^{**}

Ratio

2 mol Na^{*} : 2 mol NaCl^{**}

start (Na)
3.21 mol
Na

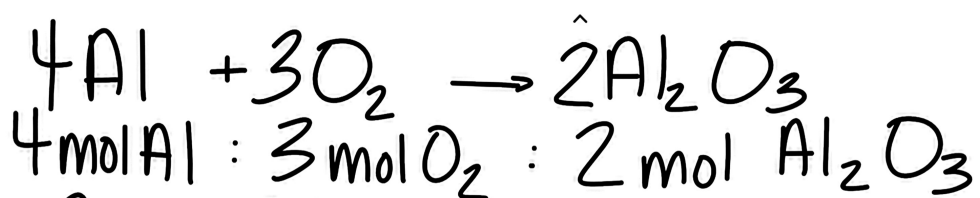
Mol. Ratio (NaCl)
2 mol NaCl

2 mol Na

Mol Ratio (Na)^{*}_A

= 3.21 mol NaCl

Using Molar Ratios



Convert 7.23mol Al to $\text{mol Al}_2\text{O}_3$

start A	mol ratio	mol B	7.23 mol Al	2 mol Al ₂ O ₃
	↓	mol A	4 mol Al	
check rt side ✓			$= \frac{7.23 \times 2 \text{ mol}}{4} = 3.62 \text{ mol Al}_2\text{O}_3$	

$\text{mol O}_2 = 7.64 \text{ mol O}_2$