

QUANTUM OF SOLACE

# DAY 2

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PG-13 PARENTS STRONGLY CAUTIONED  
SOME MATERIAL, INCLUDING LANGUAGE, MAY BE INAPPROPRIATE FOR CHILDREN UNDER 13  
INTENSE SEQUENCES OF VIOLENCE AND ACTION, AND SOME SEXUAL SMUT



COLUMBIA PICTURES





# EASIER WAY?

- Ionic compounds have a **neutral (0)** charge

**# positive charges = # of negative charges**

Lithium Combines with Nitrogen



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# Writing Balanced Chemical Formulas

## Criss-Cross Rule for Ionic Compounds

Example: Aluminum Chloride

**Step 1:**

write symbols & charge of elements

*Cation (metal) always written 1<sup>st</sup>*

Aluminum

Chloride

**Step 2:**

criss-cross charges as subscripts



**Step 3:**

combine as formula unit



charge on cation "becomes" subscript of anion  
charge on anion "becomes" subscript of cation

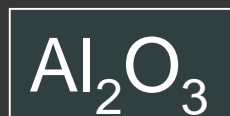
\*\* Warning: Reduce subscripts to lowest terms.



Ones are not included in formulas!!

Compound is neutral, so there are  
NO charges in final answer

$\text{Al}^{3+}$  and  $\text{O}^{2-}$



$\text{Ba}^{2+}$  and  $\text{S}^{2-}$



$\text{In}^{3+}$  and  $\text{Br}^{1-}$



aluminum oxide

barium sulfide

indium bromide



Sodium Combines with Chlorine



Magnesium Combines with Oxygen



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