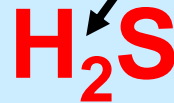


COUNTING ATOMS

RULES FOR COUNTING ATOMS

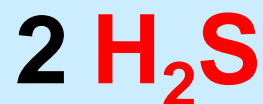
1. **SUBSCRIPTS** only refer to the atom that they are **BEHIND**. For example...



There are **TWO** atoms of **HYDROGEN** and only **ONE** atom of **SULFUR**.

COEFFICIENTS

2. **COEFFICIENTS** apply to the entire compound. You **MULTIPLY** the coefficients and **SUBSCRIPTS**.



ATOMS OF HYDROGEN: 4

ATOMS OF SULFUR: 2



IF THERE ISN'T A SUBSCRIPT BEHIND AN ELEMENT, ASSUME THERE IS ONLY ONE ATOM OF THAT ELEMENT!

PARENTHESES

3. If elements or compounds are inside of **PARENTHESES**, then the **SUBSCRIPT** behind the parentheses applies to everything inside.



ATOMS OF BARIUM: **1**

ATOMS OF OXYGEN: **2**

ATOMS OF HYDROGEN: **2**

LET'S PRACTICE!



Atoms of Magnesium: **1**

Atoms of Chlorine: **2**



Atoms of Aluminum: **2**

Atoms of Sulfur: **3**

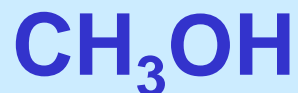
PRACTICE



Atoms of Hydrogen: **2**

Atoms of Sulfur: **1**

Atoms of Oxygen: **4**



Atoms of Carbon: **1**

Atoms of Hydrogen: **4**

Atoms of Oxygen: **1**

THIS COULD BE A LITTLE TRICKY...



Atoms of Calcium: **3**

Atoms of Phosphorus: **2**

Atoms of Oxygen: **8**

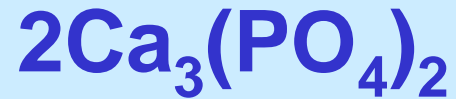


Atoms of Aluminum: **2**

Atoms of Sulfur: **3**

Atoms of Oxygen: **12**

What about this BAD BOY???



Atoms of Calcium: **6**

Atoms of Phosphorus: **4**

Atoms of Oxygen: **16**

