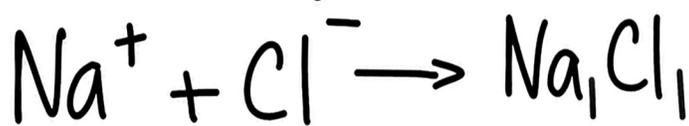


Noteset 4E (Part 1) - In Class Noteset

Balancing Chemical Reactions Part 1

Balancing Reactions

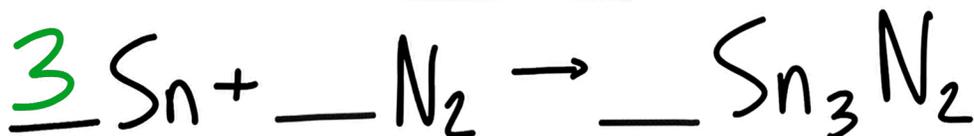


Egn. has same # of reactants and products (balanced)



Product has more Cl than the reactants 1Cl vs. 3Cl (not in balance)

Balancing Process



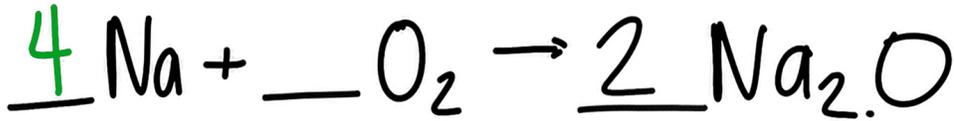
| | | | |
|----|----------------------|----|---|
| Sn | 1 3 ← 3·1 | Sn | 3 |
| N | 2 | N | 2 |

| | |
|--------------|-----------|
| <u>Steps</u> | <u>Sn</u> |
| 1:3 | 3-1 |

Steps

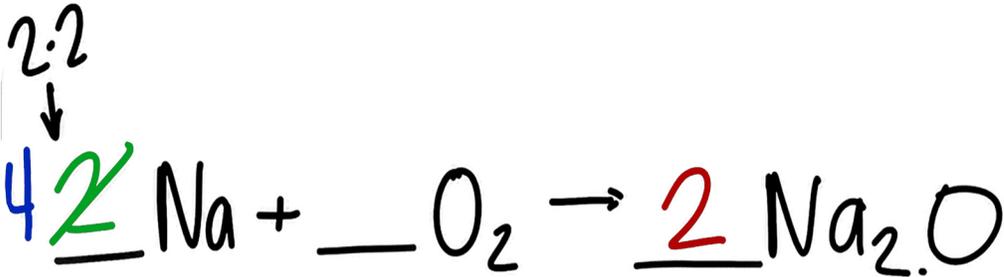
1. Write Rxn
2. Count atoms and/or ions
3. Add coefficients
4. Continue Balance.
5. Check Answer

Balancing Process



| | | | |
|----|-----|----|-----|
| Na | X 4 | Na | X 4 |
| O | 2 | O | X 2 |

Steps | $\overset{\text{O}}{2:1} (1-2)$ | $\overset{\text{Na}}{1:4} (4-1)$



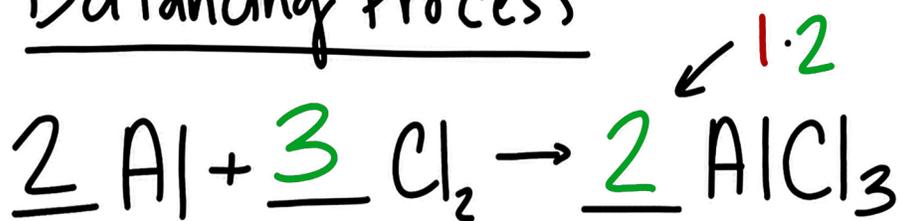
| | | | |
|----|-------|----|-----|
| Na | X 2 4 | Na | X 4 |
| O | 2 | O | X 2 |

Steps | $\overset{\text{Na}}{1:2} (2-1)$ | $\overset{\text{O}}{2:1} (1-2)$ | $\overset{\text{Na}}{2:4} (2-1)$

Steps

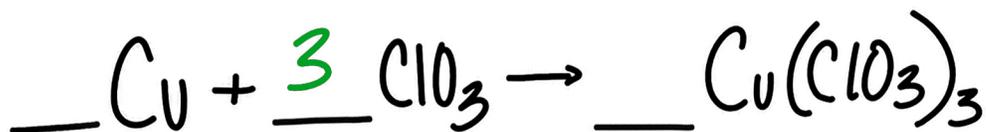
1. Write Rxn
2. Count atoms and/or ions
3. Add coefficients
4. Continue Balance.
5. Check Answer

Balancing Process



| | | | |
|----|-----|----|----------------|
| Al | X 2 | Al | X 2 |
| Cl | X 6 | Cl | 3 6 |

| | | |
|-------|---------|---------|
| Steps | Cl | Al |
| | 2:3 3-2 | 1:2 2-1 |



| | | | |
|------------------|-----|------------------|---|
| Cu | 1 | Cu | 1 |
| ClO ₃ | X 3 | ClO ₃ | 3 |

| | |
|-------|------------------|
| Steps | ClO ₃ |
| | 1:3 3-1 |

Steps

1. Write Rxn
2. Count atoms and/or ions
3. Add coefficients
4. Continue Balance.
5. Check Answer