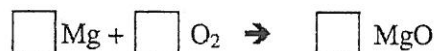


Balancing Act

Overhead Key

Atoms are not **CREATED** or **DESTROYED** during a chemical reaction. Scientists know that there must be the **SAME** number of atoms on each **SIDE** of the **EQUATION**. To balance the chemical equation, you must add **COEFFICIENTS** in front of the chemical formulas in the equation. You cannot **ADD** or **CHANGE** subscripts!

Step 1: Determine number of atoms for each element.



Step 2: Pick an element that is not equal on both sides of the equation.

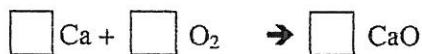
$$\text{Mg} = \qquad \qquad \text{Mg} =$$

$$\text{O} = \qquad \qquad \text{O} =$$

Step 3: Add a coefficient in front of the formula with that element and adjust your counts.

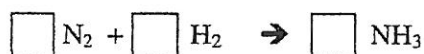
Step 4: Continue adding coefficients to get the same number of atoms of each element on each side.

Try these:



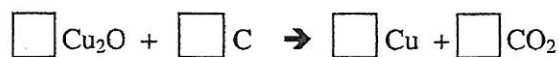
$$\text{Ca} = \qquad \qquad \text{Ca} =$$

$$\text{O} = \qquad \qquad \text{O} =$$



$$\text{N} = \qquad \qquad \text{N} =$$

$$\text{H} = \qquad \qquad \text{H} =$$



$$\text{Cu} = \qquad \qquad \text{Cu} =$$

$$\text{O} = \qquad \qquad \text{O} =$$

$$\text{C} = \qquad \qquad \text{C} =$$



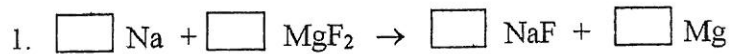
$$\text{H} = \qquad \qquad \text{H} =$$

$$\text{O} = \qquad \qquad \text{O} =$$

Name _____

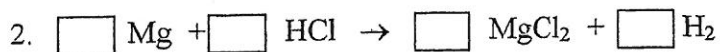
Balancing Act Practice

Balance each equation. Be sure to show your work! Remember you cannot add subscripts or place coefficients in the middle of a chemical formula.



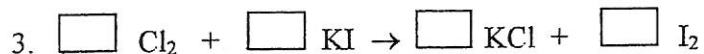
Na =
Mg =
F =

Na =
Mg =
F =



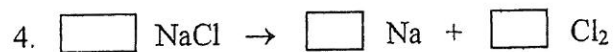
Mg =
H =
Cl =

Mg =
H =
Cl =



Cl =
K =
I =

Cl =
K =
I =



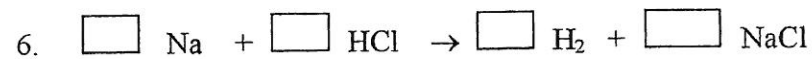
Na =
Cl =

Na =
Cl =



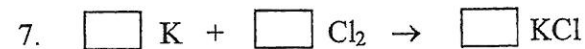
Na =
O =

Na =
O =



Na =
H =
Cl =

Na =
H =
Cl =



K =
Cl =

K =
Cl =