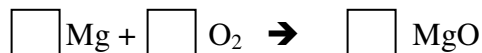


# Balancing Act

Name \_\_\_\_\_

Atoms are not \_\_\_\_\_ or \_\_\_\_\_ during a chemical reaction. Scientists know that there must be the \_\_\_\_\_ number of atoms on each \_\_\_\_\_ of the \_\_\_\_\_. To balance the chemical equation, you must add \_\_\_\_\_ in front of the chemical formulas in the equation. You cannot \_\_\_\_\_ or \_\_\_\_\_ subscripts!

1) Determine number of atoms for each element.



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

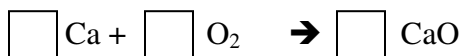
$$\text{Mg} = \qquad \qquad \text{Mg} =$$

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

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

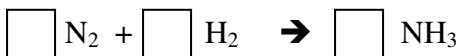
4) Continue adding coefficients to get the same number of atoms of each element on each side.

## Try these:



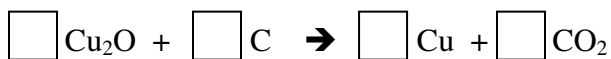
$$\text{Ca} = \qquad \qquad \text{Ca} =$$

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



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

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



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

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

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



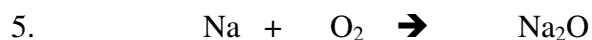
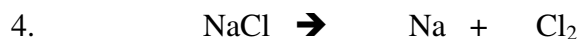
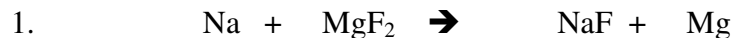
$$\text{H} = \qquad \qquad \text{H} =$$

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

## Balancing Act Practice

Name \_\_\_\_\_

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



**Challenge: This one is tough!**

