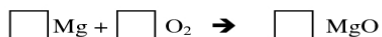


## Balancing Act

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.

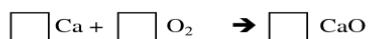
$$\text{Mg} = \qquad \qquad \text{Mg} =$$

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

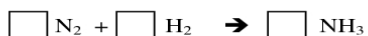
$$\text{O} = \qquad \qquad \text{O} =$$

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

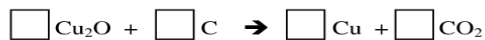
### Try these:



$$\begin{array}{l} \text{Ca} = \qquad \qquad \text{Ca} = \\ \text{O} = \qquad \qquad \text{O} = \end{array}$$



$$\begin{array}{l} \text{N} = \qquad \qquad \text{N} = \\ \text{H} = \qquad \qquad \text{H} = \end{array}$$



$$\begin{array}{l} \text{Cu} = \qquad \qquad \text{Cu} = \\ \text{O} = \qquad \qquad \text{O} = \\ \text{C} = \qquad \qquad \text{C} = \end{array}$$



$$\begin{array}{l} \text{H} = \qquad \qquad \text{H} = \\ \text{O} = \qquad \qquad \text{O} = \end{array}$$