

Balancing Equations

coefficient: _____

subscript: _____

reactant: _____

product: _____

Law of Conservation of Matter

Atoms (matter) 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!

A balanced chemical equation has the same number of each kind of atom on the _____ side as on the _____ side.

You must look at the _____ to balance an equation.

In order to determine whether an equation is balanced _____ the number in front of the chemical formula in the equation (_____) by the number written below the symbol in the formula (_____).

The number of each kind of atom on the _____ of the arrow must equal the number of each kind of atom on the _____ of the arrow for the equation to be balanced.

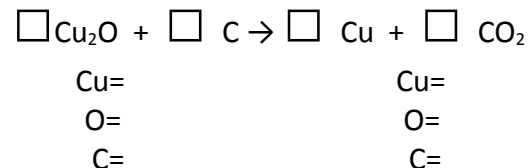
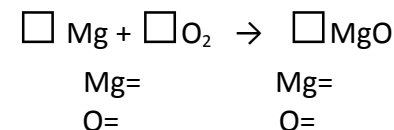
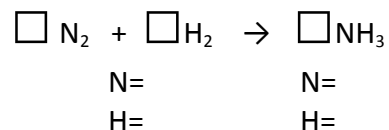
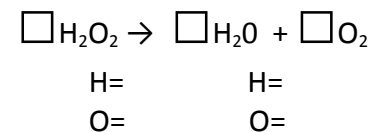
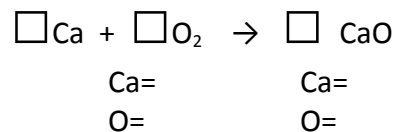
Steps to Balance Equations

1) Determine number of atoms _____

2) Pick an element that is _____ on both sides of the equation. Add a _____ in front of the formula with that element and adjust your counts.

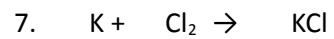
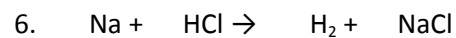
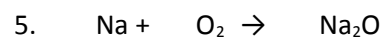
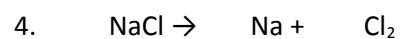
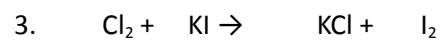
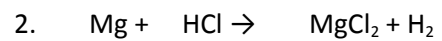
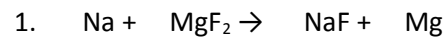
3) Continue adding coefficients to get the same number of atoms _____

Try These:



Balancing Act Practice

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!

