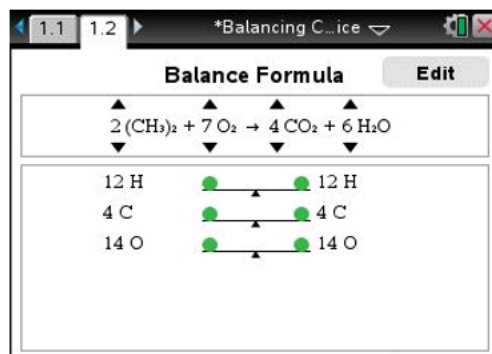


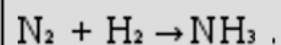
Problem 1

Balancing Chemical Equations – Practice



Science Nspired

Identify the reactant(s) of the reaction

☐

N_2

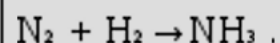
☐

H_2

☐

NH_3

Identify the product(s) of the reaction

☐

N_2

☐

H_2

☐

NH_3

What do the subscripts in an equation represent?

☐

The number of each reactant/product.

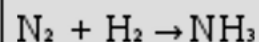
☐

The number of each atom in a molecule.

☐

The mass of each element.

In the following equation, how many atoms of hydrogen are present in the reactants?

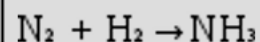


☐ 1

☐ 2

☐ 3

In the following equation, how many atoms of hydrogen are present in the product?

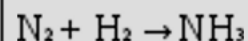


☐ 1

☐ 2

☐ 3

This equation is balanced.



☐ True

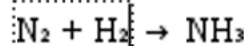
☐ False

The tool on the following page enables you enter and balance chemical equations.

Clicking the **Balance** mode allows you to balance the chemical equation.

Use the up and down arrows to adjust the coefficients that appear in front of each reactant or product.

Edit Chemical Formula **Balance**



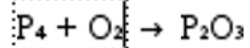
What do the coefficients in an equation represent?

- ☐ The number of each reactant/product.
- ☐ The number of each atom in a molecule.
- ☐ The mass of each element.

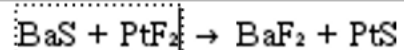
Problem 2

On the next 8 pages, balance each equation.

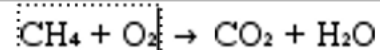
Edit Chemical Formula **Balance**



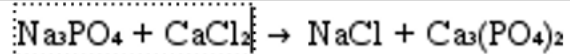
Edit Chemical Formula **Balance**



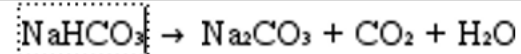
Edit Chemical Formula **Balance**



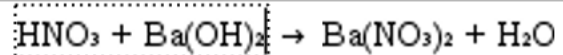
Edit Chemical Formula **Balance**



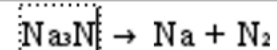
Edit Chemical Formula **Balance**



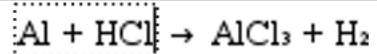
Edit Chemical Formula **Balance**



Edit Chemical Formula **Balance**



Edit Chemical Formula **Balance**



Problem 3

Identify the reactants in the chemical equation
 $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$.

☐ CH_4

☐ O_2

☐ CO_2

☐ H_2O

Select all statements that are true.

☐ The type and number of atoms must be the same on both sides of the equation.

☐ The mass of the reactants and the mass of the products are the same.

☐ An equation is balanced by writing whole numbers before a chemical symbol or formula.

☐ An equation is balanced by changing subscripts in chemical formulas.

Select the equation that is NOT balanced.

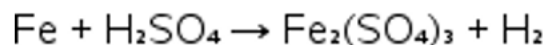
☐ $2\text{NaBr} + \text{Cl}_2 \rightarrow 2\text{NaCl} + \text{Br}_2$

☐ $\text{C}_2\text{H}_6 + 5\text{O}_2 \rightarrow 6\text{H}_2\text{O} + 2\text{CO}_2$

☐ $3\text{CaCl}_2 + 2\text{Na}_3\text{PO}_4 \rightarrow \text{Ca}_3(\text{PO}_4)_2 + 6\text{NaCl}$

☐ $2\text{Al} + 6\text{HCl} \rightarrow 2\text{AlCl}_3 + 3\text{H}_2$

Balance the given equation.



Now practice some more...

Balance the following equations by writing the formulas and entering them on page 3.6.

11. Copper + silver nitrate → silver + copper (II) nitrate

Symbols: →

12. Hydrochloric acid + sodium chloride → sodium chloride + water

Symbols: →

13. Calcium hydroxide → calcium oxide + water

Edit Chemical Formula **Balance**

Formula + Formula → Formula + Formula

The end.