

introduction to balancing chemical equations

review

1. Label the reactants and the product(s) in the following chemical reactions:



2. What is a subscript? What does a subscript tell you? Come up with an example and label the subscript. _____

example:

3. What is a coefficient? What does a coefficient tell you? Come up with an example and label the coefficient. _____

example:

4. Look at the following equation: $\text{Fe} + \text{Cl}_2 \rightarrow \text{FeCl}_3$

a. Which elements are in the above reaction? _____

How many of each element on the reactant side? Fe = _____ Cl = _____

How many of each element on the product side? Fe = _____ Cl = _____

apply!

5. Plant cells use water, carbon dioxide and energy from the sun to produce glucose and oxygen. This process is called photosynthesis.



Which chemical formula(s) represents the reactants?	Which chemical formula(s) represents the products?
How many of each atom is present in the reactants? C - H - O -	How many of each atom is present in the products? C - H - O -
Is this a balanced equation (yes or no)? Explain why.	

6. A silver spoon tarnishes. The silver reacts with sulfur in the air to make silver sulfide, the black material we call tarnish.



Which chemical formula(s) represents the reactants?	Which chemical formula(s) represents the products?
How many of each atom is present in the reactants? Ag - S -	How many of each atom is present in the products? Ag - S -
Is this a balanced equation (yes or no)? Explain why.	

7. Silicon, the second most common element in Earth's crust, is commonly used in semiconductors and electronics. Since it is naturally found in quartz, it is necessary to heat the quartz with carbon to separate the silicon.



Which chemical formula(s) represents the reactants?	Which chemical formula(s) represents the products?
How many of each atom is present in the reactants? Si - O - C -	How many of each atom is present in the products? Si - O - C -
Is this a balanced equation (yes or no)? Explain why.	

practice balancing chemical equations:

Use your page 22 (notebook) to practice balancing the following equations:

