

Chemical Reactions & Equations Practice

Name _____ Hour _____

1. When a substance changes into a new substance a **chemical / physical** change has occurred. (circle one)

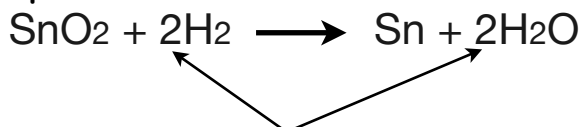
- _____ 2. A formula is a shorthand way to represent...
- a. elements
 - b. molecules
 - c. reactions
 - d. atoms

Look at this example:



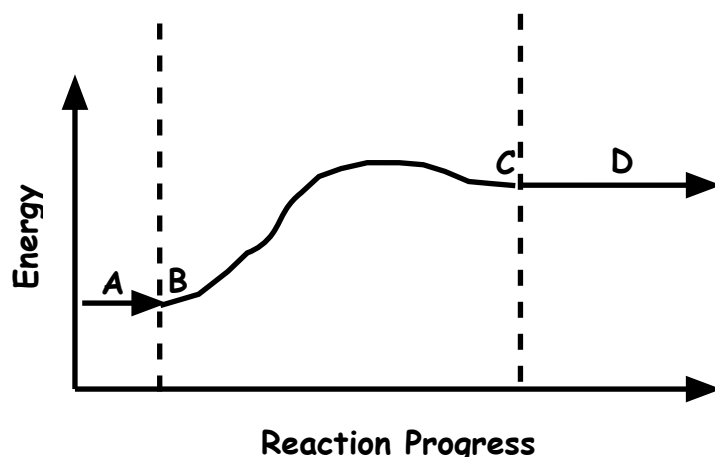
3. This example above is not balanced, balance the example.
4. This example represents a chemical reaction. A shorthand way to represent a chemical reaction is called a(n) _____
5. In the example above place a box around the reactants and a circle around the products.

Look at this example:



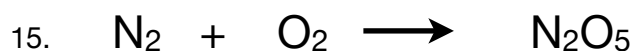
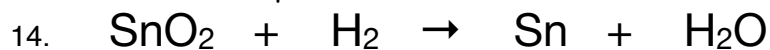
- _____ 6. In this example these numbers are called ...
- a. subscripts
 - b. mass number
 - c. atomic number
 - d. coefficients
7. The arrow \longrightarrow in the middle of the example above means _____
8. List the 4 signs of a chemical change.

Examine the graphs below that shows a chemical reaction.



9. Between which letters shows the reactants actively taking place? _____
10. Which letter of the graph best shows only products? _____
11. Which letter of the graph best shows the beginning point of the reaction? _____
12. Which letter of the graph best shows the ending point of the reaction? _____
13. Was overall energy gained or lost in this reaction? _____

Balance these equations



Read the example below:

While performing an experiment, Steve placing a red liquid in a beaker with a clear liquid. The two liquids together made a mixture that was light red color. He then dissolved a white powder in water until it was clear. Steve then poured both together and noticed that it formed a cloudy blue, solid substance at the top, and felt warm to the touch.

Place the correct letter in the blanks to indicate the correct answer.

- ___ 16. The liquid is red
- ___ 17. The two liquids together made a mixture that was light red color.
- ___ 18. He then dissolved a white powder in water until it was clear.
- ___ 19. formed a cloudy blue, solid substance at the top, and felt warm to the touch.

PC = physical change
 CC = chemical change
 PP = physical property
 CP = chemical property