

# Classic Chembalancer

Name \_\_\_\_\_

Period \_\_\_\_\_

Date \_\_\_\_\_

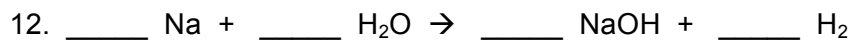
## Directions:

1. Go to Classic Chembalancer at <http://funbasedlearning.com/chemistry/chemBalancer/default.htm>
2. Click '**Directions**'. Read and understand the directions. Click '**OK**'. Click on '**Start Game**'.
3. Try entering some numbers in the text boxes in front of each molecule. What happens?
4. If you forget the directions, click on the '**How to Play the Game**' link. Click '**OK**' when you finish reading them to return to the game.
5. When you think you have typed the right numbers in all the boxes, click the '**Balanced**' button.
6. If you didn't get it right, try again.
7. If you did get it right, then fill in the correct answers on this worksheet for #1.
8. Repeat steps 3-7 for the other 10 problems.
9. Now do the two problems on the back of this worksheet. You can draw the molecules just like the program did to figure out the answer or you may use the method you learned in class.

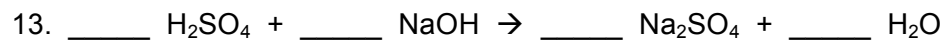
## Problems:

1. \_\_\_\_\_ Fe + \_\_\_\_\_ S → \_\_\_\_\_ FeS
2. \_\_\_\_\_ H<sub>2</sub> + \_\_\_\_\_ Cl<sub>2</sub> → \_\_\_\_\_ HCl
3. \_\_\_\_\_ Mg + \_\_\_\_\_ O<sub>2</sub> → \_\_\_\_\_ MgO
4. \_\_\_\_\_ O<sub>2</sub> + \_\_\_\_\_ H<sub>2</sub> → \_\_\_\_\_ H<sub>2</sub>O
5. \_\_\_\_\_ HgO → \_\_\_\_\_ Hg + \_\_\_\_\_ O<sub>2</sub>
6. \_\_\_\_\_ Ca + \_\_\_\_\_ H<sub>2</sub>O → \_\_\_\_\_ Ca(OH)<sub>2</sub> + \_\_\_\_\_ H<sub>2</sub>
7. \_\_\_\_\_ CH<sub>4</sub> + \_\_\_\_\_ O<sub>2</sub> → \_\_\_\_\_ CO<sub>2</sub> + \_\_\_\_\_ H<sub>2</sub>O
8. \_\_\_\_\_ Na<sub>2</sub>O<sub>2</sub> + \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub> → \_\_\_\_\_ Na<sub>2</sub>SO<sub>4</sub> + \_\_\_\_\_ H<sub>2</sub>O<sub>2</sub>
9. \_\_\_\_\_ N<sub>2</sub> + \_\_\_\_\_ H<sub>2</sub> → \_\_\_\_\_ NH<sub>3</sub>
10. \_\_\_\_\_ Al + \_\_\_\_\_ O<sub>2</sub> → \_\_\_\_\_ Al<sub>2</sub>O<sub>3</sub>
11. \_\_\_\_\_ KMnO<sub>4</sub> → \_\_\_\_\_ K<sub>2</sub>O + \_\_\_\_\_ MnO + \_\_\_\_\_ O<sub>2</sub>

Draw the molecules just like the program did or use the method you learned in class to figure out the answers to #12 and #13.



Fact for #12: Sodium metal, Na, is stored in kerosene so it won't react with water vapor. When added to water it reacts quickly to make hydrogen gas.



Fact for #13: This is an example of an acid base reaction. Acid + Base → Salt + Water