

# May 27, 2019

go over answers pg 247 #4,5/ Reaction Worksheet  
more Chp 6 Review

**Test Tomorrow on Chp 6 Chemical  
Reactions!!**

## Answers pg 247 #4,5

4. a) synthesis

b) single replacement

c) double replacement

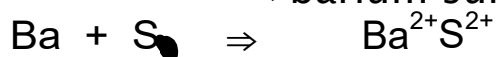
d) decomposition

e) decomposition

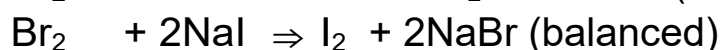
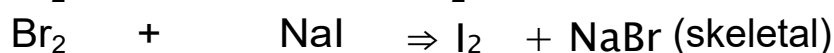
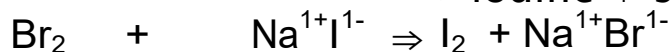
f) single replacement

g) synthesis

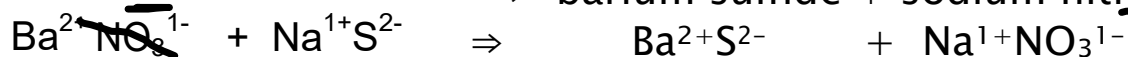
5. a) barium + sulfur  $\Rightarrow$  barium sulfide



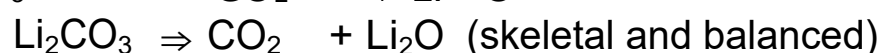
b) bromine + sodium iodide  $\Rightarrow$  iodine + sodium bromide



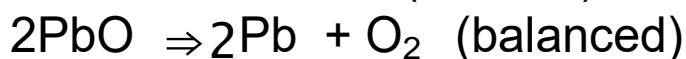
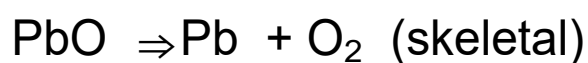
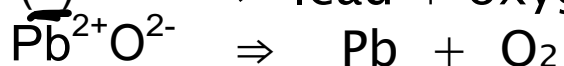
c) barium nitrate + sodium sulfide  $\Rightarrow$  barium sulfide + sodium nitrate



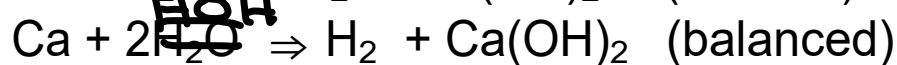
d) lithium carbonate  $\Rightarrow$  carbon dioxide + lithium oxide



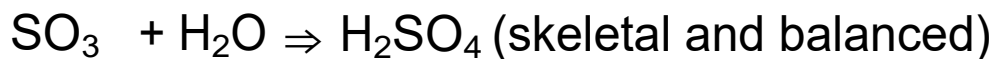
e) lead (II) oxide  $\Rightarrow$  lead + oxygen



f) calcium + water  $\Rightarrow$  hydrogen + calcium hydroxide



g) sulfur trioxide + water  $\Rightarrow$  sulfuric acid



- |     |  |  |
|-----|--|--|
| 1)  | $2 \text{ NaBr} + 1 \text{ Ca(OH)}_2 \rightarrow 1 \text{ CaBr}_2 + 2 \text{ NaOH}$                            | Type of reaction: <b>double displacement</b> |
| 2)  | $2 \text{ NH}_3 + 1 \text{ H}_2\text{SO}_4 \rightarrow 1 \text{ (NH}_4)_2\text{SO}_4$                          | Type of reaction: <b>synthesis</b>           |
| 3)  | $4 \text{ C}_5\text{H}_9\text{O} + 27 \text{ O}_2 \rightarrow 20 \text{ CO}_2 + 18 \text{ H}_2\text{O}$        | Type of reaction: <b>combustion</b>          |
| 4)  | $3 \text{ Pb} + 2 \text{ H}_3\text{PO}_4 \rightarrow 3 \text{ H}_2 + 1 \text{ Pb}_3(\text{PO}_4)_2$            | Type of reaction: <b>single replacement</b>  |
| 5)  | $1 \text{ Li}_3\text{N} + 3 \text{ NH}_4\text{NO}_3 \rightarrow 3 \text{ LiNO}_3 + 1 \text{ (NH}_4)_3\text{N}$ | Type of reaction: <b>double replacement</b>  |
| 6)  | $2 \text{ KClO}_3 \rightarrow 2 \text{ KCl} + 3 \text{ O}_2$   | Type of reaction : <b>decomposition</b>      |
| 7)  | $2 \text{ KBr} + \text{F}_2 \rightarrow 2 \text{ KF} + \text{Br}_2$  | Type of reaction: <b>single replacement</b>  |
| 8)  | $\text{Na}_3\text{PO}_4 + 3 \text{ KOH} \rightarrow 3 \text{ NaOH} + \text{K}_3\text{PO}_4$                    | Type of reaction: <b>double replacement</b>  |
| 9)  | $\text{MgCl}_2 + \text{Li}_2\text{CO}_3 \rightarrow \text{MgCO}_3 + 2 \text{ LiCl}$                            | Type of reaction: <b>double replacement</b>  |
| 10) | $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$   | Type of reaction: <b>decomposition</b>       |
| 11) | $2 \text{ C}_5\text{H}_5 + \text{Fe} \rightarrow \text{Fe(C}_5\text{H}_5)_2$                                   | Type of reaction: <b>synthesis</b>           |
| 12) | $\text{SeCl}_6 + \text{O}_2 \rightarrow \text{SeO}_2 + 3\text{Cl}_2$   | Type of reaction: <b>single replacement</b>  |
| 13) | $\text{C}_3\text{H}_6\text{O} + 4 \text{ O}_2 \rightarrow 3 \text{ CO}_2 + 3 \text{ H}_2\text{O}$              | Type of reaction: <b>combustion</b>          |
| 14) | $2 \text{ NO}_2 \rightarrow 2 \text{ O}_2 + \text{N}_2$  | Type of reaction : <b>decomposition</b>      |
| 15) | $1 \text{ AlCl}_3 + 3 \text{ Cs} \rightarrow 3 \text{ CsCl} + 1 \text{ Al}$                                    | Type of reaction: <b>Single Displacement</b> |

## Types of Reactions

### Synthesis (Building Up)

One product

### Decomposition (Breaking Down)

One Reactant

### Combustion (burning)

complete products are  $\text{CO}_2 + \text{H}_2\text{O}$

incomplete products are  $\text{CO}_2 + \text{CO} + \text{C} + \text{H}_2\text{O}$

### Single Replacement

element + compound as reactants and products

### Double Replacement

compound + compound as reactants and products

## Remember these tips when balancing

- \* Remember you can only add co-efficient's
- \* Balance the easy atoms first (those that only appear once on each side of the equation)
- \* Keep poly-atomics that stay together together.
- \* Keep oxygen till the end
- \* if there is an odd number of oxygen balance the other atoms 1st then put the odd number in front of the  $O_2$  and double the remaining coefficients.
- \* if you have an OH on one side and an  $H_2O$  on the other rewrite the  $H_2O$  as HOH.

## Complete

### Chp 6 Review WS/Types of Reaction Review WS

Practice, Practice, Practice these are the same types of questions that are on your test!!!!

Answers will be posted on the website make sure you check!!!

Also make sure you can identify reaction type, write skeletal equations and balance!!! (There is a question on the test like this worth a lot of marks!!!!)