

Name KEY  
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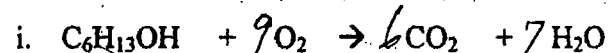
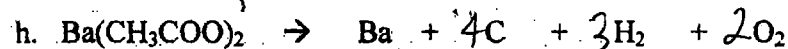
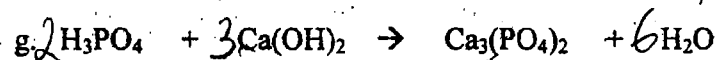
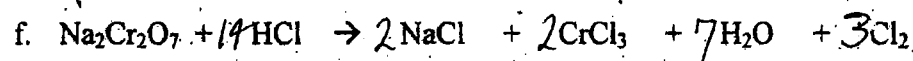
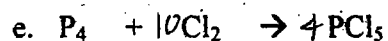
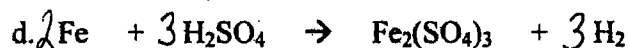
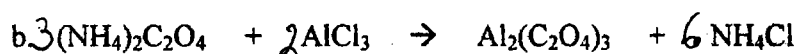
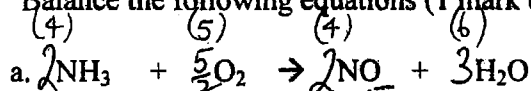
Correct and Hand in Again by \_\_\_\_\_

## Chemistry 11

### Hand In Assignment # 7 - Chemical Equations

This Assignment will be marked and you are allowed to do one set of corrections.

1. Balance the following equations (1 mark each = 10 marks)



Write a balanced chemical equation for each of the following. Don't forget *diatomic* elements! (2 marks each = 24 marks)

- a. aluminum metal reacts with bromine to form aluminum bromide

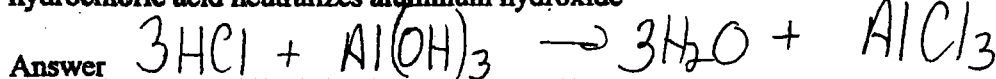
Answer



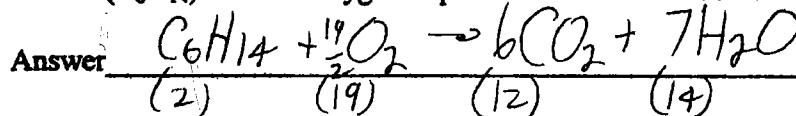
$\frac{12}{12}$



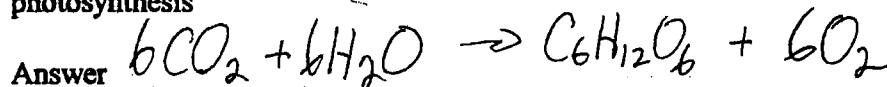
b. hydrochloric acid neutralizes aluminum hydroxide



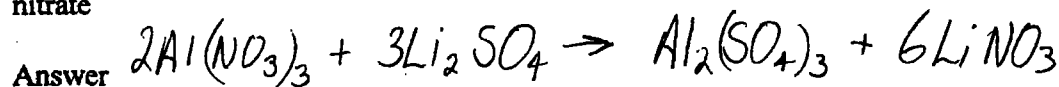
c. hexane ( $\text{C}_6\text{H}_{14}$ ) burns in oxygen to produce carbon dioxide and water



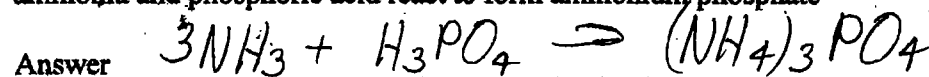
d. carbon dioxide and water are reacted to produce glucose ( $\text{C}_6\text{H}_{12}\text{O}_6$ ) and oxygen in photosynthesis



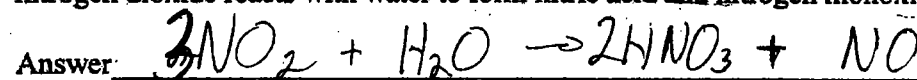
e. aluminum nitrate reacts with lithium sulphate to form aluminum sulphate and lithium nitrate



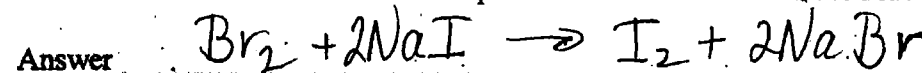
f. ammonia and phosphoric acid react to form ammonium phosphate



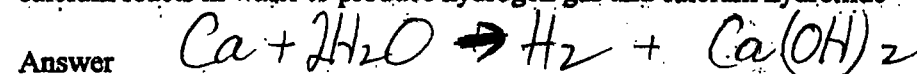
g. nitrogen dioxide reacts with water to form nitric acid and nitrogen monoxide



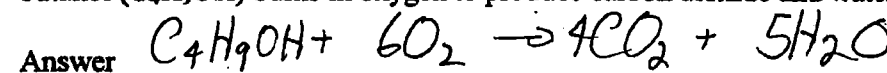
h. bromine reacts with sodium iodide to produce iodine and sodium bromide



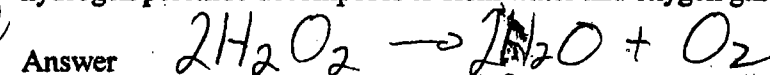
i. calcium reacts in water to produce hydrogen gas and calcium hydroxide



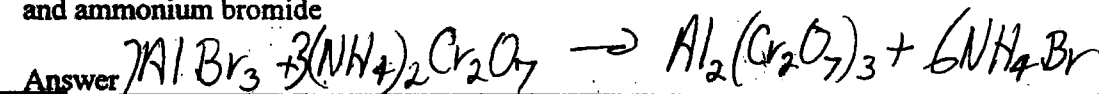
j. butanol ( $\text{C}_4\text{H}_9\text{OH}$ ) burns in oxygen to produce carbon dioxide and water



k. hydrogen peroxide decomposes to form water and oxygen gas



l. aluminum bromide reacts with ammonium dichromate to produce aluminum dichromate and ammonium bromide



$\frac{22}{22}$



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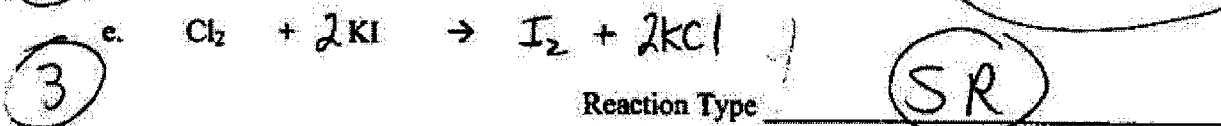
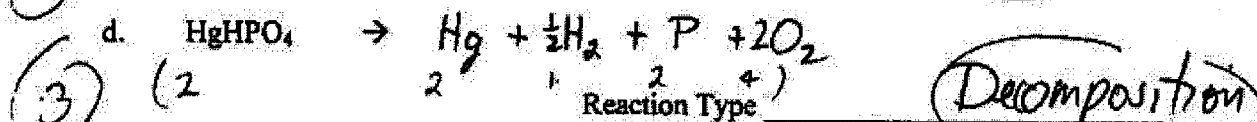
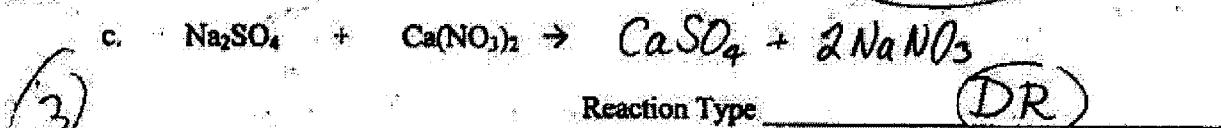
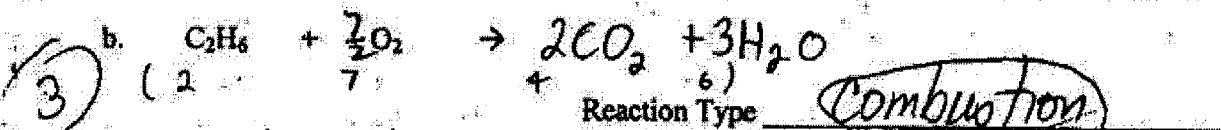
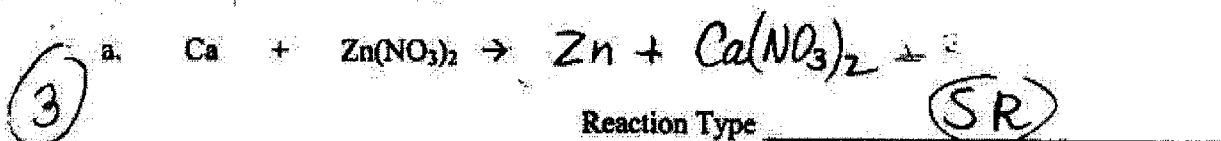
Correct and Hand in Again by \_\_\_\_\_

## Chemistry 11

### Hand In Assignment # 8—Completing, Balancing & Classifying Chemical Equations

This Assignment will be marked and you are allowed to do one set of corrections.

1. Complete, balance and classify the following equations as *synthesis*, *decomposition*, *single replacement*, *double replacement*, *neutralization* or *combustion*.  
 (3 marks each = 51 marks)



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- g.  $Zn + Pb(ClO)_2 \rightarrow Pb + Zn(ClO)_2$   
 Reaction Type S.R
- h.  $2CoI_3 + 3(NH_4)_2CrO_4 \rightarrow Co_2(CrO_4)_3 + 6NH_4I$   
 Reaction Type DR
- i.  $C_{10}H_{21}OH + 15O_2 \rightarrow 10CO_2 + 11H_2O$   
 Reaction Type Combustion
- j.  $Ba(OH)_2 + 2HNO_3 \rightarrow 2H_2O + Ba(NO_3)_2$   
 Reaction Type neutralization (DR)
- k.  $2Cu + O_2 \rightarrow 2CuO$   
 (Assume combining capacity of Cu is 2+)  
 Reaction Type Synthesis or combustion
- l.  $Li_3AsO_4 \rightarrow 3Li + As + 2O_2$   
 Reaction Type decomposition
- m.  $3RbOH + H_3PO_4 \rightarrow 3H_2O + Rb_3PO_4$   
 Reaction Type neutralization (DR)
- n.  $3Fe(NO_3)_2 + 2Na_3PO_4 \rightarrow Fe_3(PO_4)_2 + 6NaNO_3$   
 Reaction Type DR
- o.  $2Al + 3H_2SO_4 \rightarrow Al_2(SO_4)_3 + 3H_2$   
 Reaction Type SR
- p.  $BeSO_4 + 2AgNO_3 \rightarrow Ag_2SO_4 + Be(NO_3)_2$   
 Reaction Type DR
- q.  $MnSO_4 + 6H_2O \rightarrow MnSO_4 \cdot 6H_2O$   
 Reaction Type Synthesis