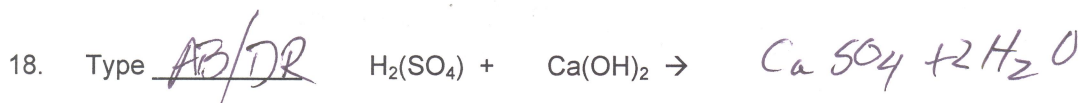
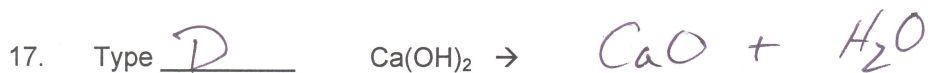
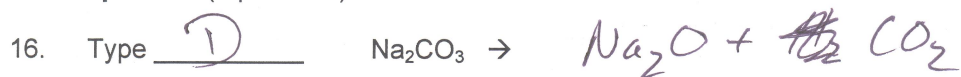


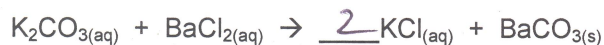
C

Complete each of the following reactions by identifying the reaction, predicting product(s) then balance each equation: (5 pts each)



19. Write a unbalanced equation:

Iron (II) hydroxide is mixed with nitric acid to produce Iron (II) nitrate and water. (5 pts)



20. In the reaction above, what is the coefficient for KCl? What is the reason for this coefficient? (5pts)

Conservation of matter



21. In the reaction above, how might increasing the temperature of the solutions change how fast the reaction happens? (5pts)

Increase the speed
molecules and atoms moving faster
meaning more collisions.

C
Name: Key Period: _____ Date: _____
CT Chemistry – Chemical Reactions Unit 5 Quiz 2C (100 pts)

MULTIPLE CHOICE: Choose the best response from the choices offered. (4 pts each)

- C What subscript is needed to balance the following formula? Mg_3N_2
a) 2 b) 1 c) 3 d) 4
- A How many atoms of nitrogen are in the compound $(\text{NH}_4)_3\text{P}$
a) 3 b) 4 c) 5 d) 6
- D When the equation: $\text{Al}(\text{OH})_3 + \text{HCl} \rightarrow \text{AlCl}_3 + \text{H}_2\text{O}$ is completed and balanced, one of the terms in the balanced equation is:
a) $\text{Al}(\text{OH})_3$ b) H_2O_2 c) AlCl d) AlCl_3
- D The chemical substance(s) that begin a chemical reaction are called
a) elements b) products c) compounds d) reactants
- F What are always the products of a combustion reaction?
a) CO_2 b) H_2O c) O_2 d) CH_4 e) a and b

For questions 6 - 11, identify the type of reaction by using the following choices. Put first letter/s of the reaction type on the line, ex. Double Replacement (DR): (5 pts each)

Single Replacement (SR) Double Replacement (DR) Synthesis (S) Decomposition (D) combustion (C)
Acid Base (AB)

- C $\text{C}_3\text{H}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- D $\text{NaCO}_3 \rightarrow \text{Na}_2\text{O} + \text{CO}_2$
- SR $\text{Al} + \text{Fe}_2\text{O}_3 \rightarrow \text{Al}_2\text{O}_3 + \text{Fe}$
- DR/AB $\text{Ca}(\text{OH})_2 + \text{H}_3\text{PO}_4 \rightarrow \text{Ca}_3(\text{PO}_4)_2 + \text{H}_2\text{O}$
- DR $\text{Sn}(\text{NO}_3)_2 + 2\text{NaCl} \rightarrow \text{SnCl}_2 + 2\text{NaNO}_3$
- S $\text{Na} + \text{Cl}_2 \rightarrow \text{NaCl}$

Balance the following equations: (5 pts each)

- 1 $\text{Fe}_2\text{O}_3(\text{s}) + \underline{2} \text{Al}(\text{s}) \rightarrow \underline{1} \text{Al}_2\text{O}_3(\text{s}) + \underline{2} \text{Fe}(\text{s})$
- 1 $\text{C}_3\text{H}_8(\text{l}) + \underline{5} \text{O}_2(\text{g}) \rightarrow \underline{3} \text{CO}_2(\text{g}) + \underline{4} \text{H}_2\text{O}(\text{g})$
- 2 $\text{Al}(\text{s}) + \underline{3} \text{H}_2(\text{SO}_4)(\text{aq}) \rightarrow \underline{1} \text{Al}_2(\text{SO}_4)_3(\text{aq}) + \underline{3} \text{H}_2(\text{g})$
- 1 $\text{Ca}(\text{OH})_2(\text{s}) + \underline{1} \text{H}_2(\text{SO}_4)(\text{aq}) \rightarrow \underline{2} \text{H}(\text{OH})(\text{l}) + \underline{1} \text{Ca}(\text{SO}_4)(\text{aq})$