Chemistry 20: Reaction types:

1. Numerical response question

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Left justify your answer in the boxes provided.

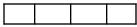
Consider the list of reactions given below

- 1. $Zn_{(s)} + NiCl_{2(aq)} \rightarrow ZnCl_{2(aq)} + Ni_{(s)}$
- 2. $CH_{4(g)} + 2O_{2(g)} \rightarrow CO_{2(g)} + 2H_2O_{(g)}$
- 3. $3CaCl_{2(aq)} + Al_2(SO_4)_{3(aq)} \rightarrow 3CaSO_{4(s)} + 2AICl_{3(aq)}$
- 4. $N_{2(g)} + 3H_{2(g)} \rightarrow 2NH_{3(g)}$
- 5. $2H_2O_{(I)} \rightarrow 2H_{2(g)} + O_{2(g)}$

Match the numbers with the following reaction types:

Synthesis double replacement single replacement

2. Numerical response question



Left justify your answer in the boxes provided

Gerald and Lyndon are performing experiments in the chemistry lab. Lyndon wants to produce carbon dioxide ($CO_{2(g)}$) and water ($H_2O_{(g)}$).

Identify the possible reactant(s) that he might use to accomplish this:

- 1. O_{2(g)}
- 2. Cl_{2(g)}
- 3. $C_3H_{8(g)}$
- 4. CCI_{4(g)}
- 5. C₅H_{10(g)}
- 6. $C_2H_5OH_{(1)}$
- 7. CF_{4(g)}

Put the answers in ascending order.

3. Numerical response question

Left justify your answer in the boxes provided.

Consider the incomplete single replacement reaction below.

$$Li_{(s)} + MgF_{2(s)} \rightarrow$$

Predict the product(s) of this reaction using the list below.

- 1. $Li_2Mg_{(s)}$
- 2. Mg_(s)
- 3. LiF_(s)
- 4. Li_(s)
- 5. $LiF_{(aq)}$

Put the answer(s) in ascending order

4. Numerical response question



Left justify your answer in the boxes provided.

Consider the list of reactions given below

- 1. $Cu_{(s)} + NiCl_{2(aq)} \rightarrow CuCl_{2(aq)} + Ni_{(s)}$
- 2. $CH_{4(g)} + 2O_{2(g)} \rightarrow CO_{2(g)} + 2H_2O_{(g)}$
- 3. $3CuCl_{2(aq)} + Al_2(SO_4)_{3(aq)} \rightarrow 3CuSO_{4(s)} + 2AlCl_{3(aq)}$
- 4. $Cl_{2(g)} + H_{2(g)} \rightarrow 2HCl_{(g)}$
- 5. $2H_2O_{2(I)} \rightarrow H_{2(g)} + O_{2(g)}$

Match the numbers with the following reaction types:

decomposition combustion formation

Solutions:

- 1. 413
- 2. 1356
- 3. 23
- 4. 524