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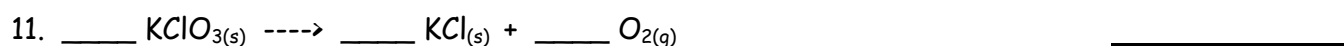
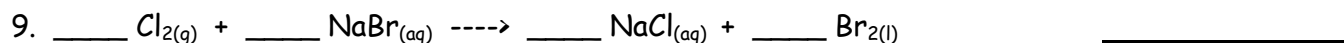
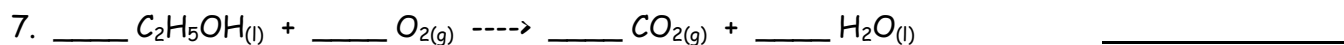
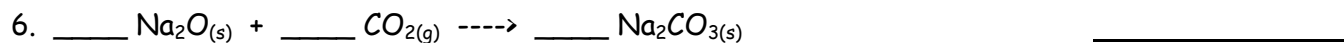
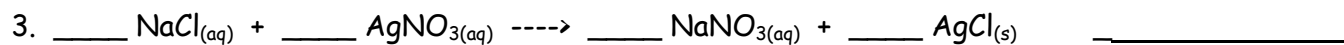
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# Chemistry 11

## Reaction Types, Predictions and Awesomeness

**Exercise A:** Balance the following chemical equations. Identify each reaction as a synthesis, decomposition, single replacement, double replacement, neutralization or combustion.

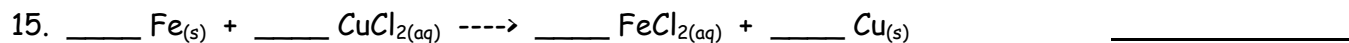
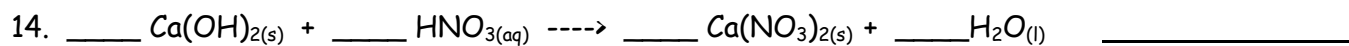
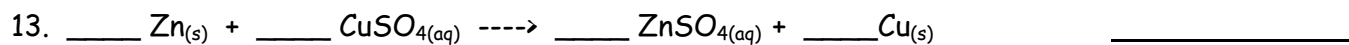
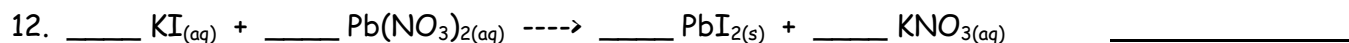
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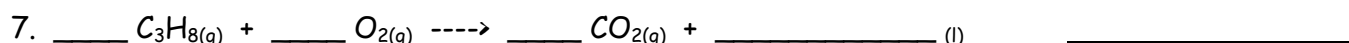
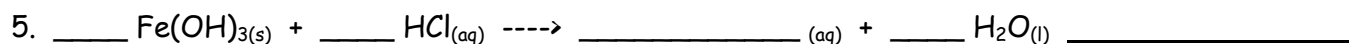
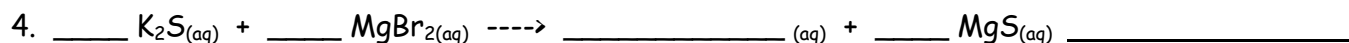
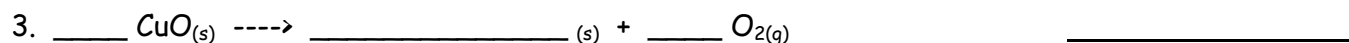
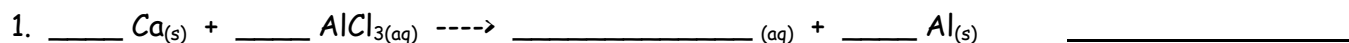
Simmer Down Inc. (Taken from someone fabulous in the Chilliwack School District)

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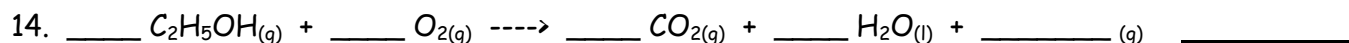
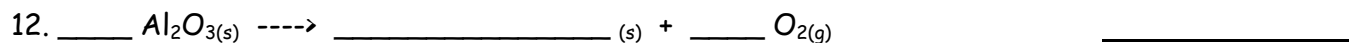
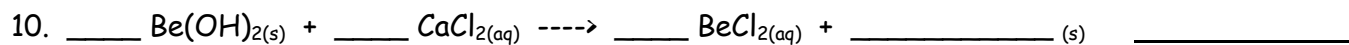
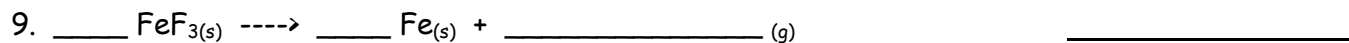
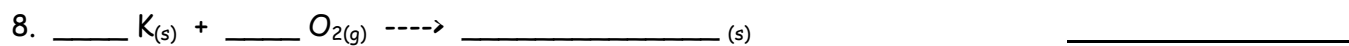


**Exercise B:** Predict the formula of the missing product in each of the following chemical reactions. Balance each chemical reaction equation. Then identify each reaction as a synthesis, decomposition, single replacement, double replacement, neutralization or combustion.

**Classification:**

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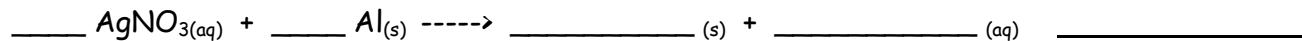
**Exercise C:** Predict the formula of the missing product(s) in each of the following chemical reactions. Be sure to include the phases. Balance the products in the chemical reaction equation. Then identify each reaction as synthesis, decomposition, single replacement, double replacement, neutralization or combustion.

\*\*\*Note: The Reaction description gives a hint about what some of the products might be\*\*\*

## REACTION DESCRIPTION

## REACTION TYPE

1. Silver metal is recovered in a laboratory by placing aluminum foil in aqueous silver nitrate.



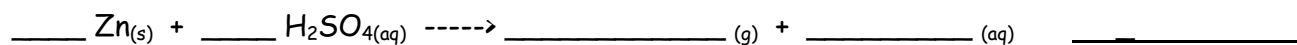
2. Bromine is mined from the ocean by bubbling chlorine gas through ocean water containing sodium bromide.



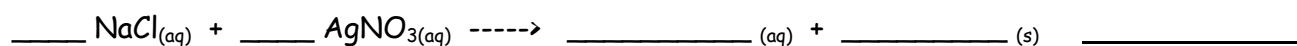
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3. A traditional laboratory method of producing hydrogen gas is to react zinc metal with sulfuric acid.



4. Chloride ions in a water sample can be tested with aqueous silver nitrate. Chloride ions are present if a white precipitate forms.



5. An analytical chemist uses sodium oxalate to precipitate a calcium compound in a sample from an acidic lake.



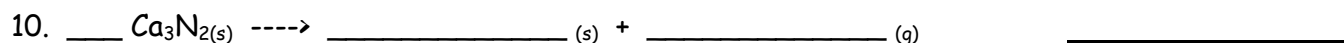
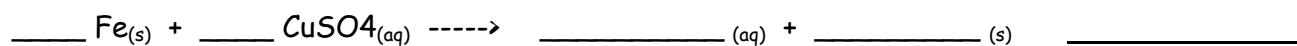
6. When aqueous potassium hydroxide is added to a well-water sample, the formation of a rusty-brown precipitate indicates the presence of an iron (III) compound in the water.



7. A chemist in a consumer-protection laboratory adds aqueous sodium hydroxide to determine the concentration of acetic acid in a vinegar sample.

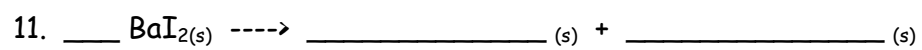


8. A dishonest 16th century alchemist who tried to fool people into believing that iron could be changed into gold, dipped an iron bar into aqueous copper (II) sulfate.

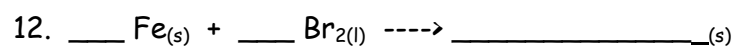


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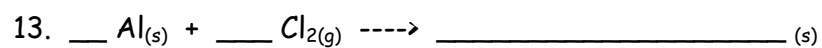
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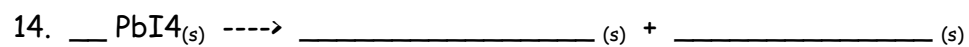
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