

## Concept Review

### Section: Classifying Chemical Reactions

Answer the following items in the space provided.

1. Your reactants are two elements. Your product is a binary compound. What type of reaction do you have?

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2. Your reactants are a hydrocarbon and oxygen. Your products are carbon dioxide and water. What type of reaction do you have?

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3. You have one reactant and two elements for products. What type of reaction do you have?

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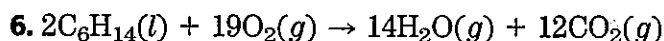
4. Your reactants are an element and a compound that is not a hydrocarbon. What type of reaction do you probably have?

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5. Your reactants are two compounds composed of ions. What type of reaction do you probably have?

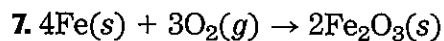
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Classify the reaction type for each of the following reactions. Briefly explain the reason for your selection.



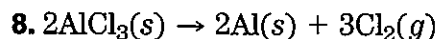
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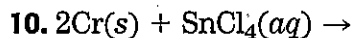
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**Concept Review** *continued*

9. Write a balanced chemical equation for the combustion of  $C_2H_2$  gas. One of the products is carbon dioxide. Be sure to include states of matter.

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**Determine whether each of the following reactions can occur. If the reaction does occur, write the complete, balanced equation. If the reaction does not occur, explain why not.**



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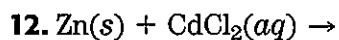
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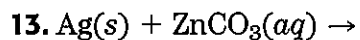
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14. Write a balanced chemical equation for the reaction of hydrochloric acid and magnesium metal. One of the products is magnesium chloride,  $MgCl_2$ . Be sure to include states of matter. What kind of reaction is this?

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