

Section Review

Types of Chemical Reactions

USING KEY TERMS

1. In your own words, write a definition for each of the following terms: *synthesis reaction* and *decomposition reaction*.

UNDERSTANDING KEY IDEAS

- _____ 2. What type of reaction does the following equation represent? $\text{FeS} + 2\text{HCl} \rightarrow \text{FeCl}_2 + \text{H}_2\text{S}$
- synthesis reaction
 - double-displacement reaction
 - single-displacement reaction
 - decomposition reaction
3. Describe the difference between single and double-displacement reactions.

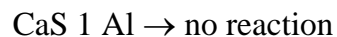
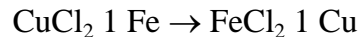
MATH SKILLS

4. Write the balanced equation in which potassium iodide, KI, reacts with chlorine to form potassium chloride, KCl, and iodine. Show your work below.

Section Review *continued*

CRITICAL THINKING

5. **Applying Concepts** The first reaction below is a single-displacement reaction that could occur in a laboratory. Explain why the second single-displacement reaction could not occur.



6. **Making Inferences** Two white compounds are mixed, and a yellow solid is formed. What kind of reaction is this? Explain your answer.
