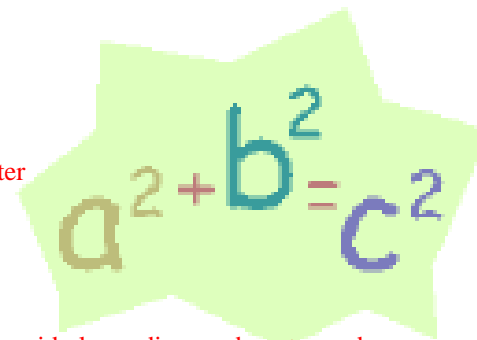


## Chemical Reactions: Word Equations

### PART A

Read aloud each of the following word equations.

1. Propane + oxygen -> carbon dioxide + water Propane plus oxygen produces carbon dioxide plus water
2. Silver + sulphur -> silver sulphide Silver plus sulphur produces silver sulphide
3. Water + carbon dioxide -> carbonic acid Water plus carbon dioxide produces carbonic acid
4. Copper + nitric acid -> copper (II) nitrate + nitrogen monoxide + water  
Copper plus nitric acid produces copper (II) nitrate produces nitrogen monoxide plus water
5. Sulphurous acid + sodium carbonate -> sodium sulphate + carbon dioxide + water Sulphurous acid plus sodium carbonate produces carbon dioxide plus water



### PART B

Read the following statements. For each reaction that is described, identify the *reactant(s)* and the *product(s)* and then write a word equation to represent the reaction that takes place. *Hint:* Remember that when burning takes place, oxygen is one of the reactants.

1. Octane, a component of gasoline, burns in an automobile engine; carbon dioxide and water are formed.  
**octane + oxygen -> carbon dioxide + water**

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2. Acid rain is formed when sulphur dioxide (from burnt sulphur) reacts with water in the air to form sulphurous acid.  
**sulphur dioxide + water -> sulphurous acid**

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3. The heat and pressure inside an automobile engine cause nitrogen and oxygen to react; the resulting substance is a pollutant, nitrogen monoxide.  
**nitrogen + oxygen -> nitrogen monoxide**

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4. Rust on cars, usually iron (III) oxide trihydrate, is formed when iron is exposed to oxygen and water in the air.  
**iron + oxygen + water -> iron (III) oxide trihydrate**

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5. Hydrogen gas is produced when an acid such as hydrochloric acid reacts with a metal such as zinc. The reaction also produces a salt – in this case, zinc chloride.  
**hydrochloric acid + zinc -> hydrogen + zinc chloride**

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