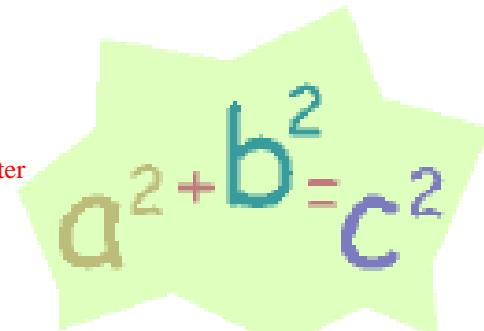


## Chemical Reactions: Word Equations

### 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
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
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
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
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