

## Writing the Complete Equation Homework

Write the complete chemical equation for each of the following chemical reactions:

- 1) When iron solid is placed in liquid lithium sulfate and electricity is added to it, iron (II) sulfate crystals and solid lithium metal are formed.
- 2) When the ethanol ( $C_2H_6O$ ) in some gasoline burns with oxygen gas in an automobile engine, it forms carbon dioxide gas and water vapor.
- 3) When the pressure on an aqueous solution of carbonic acid is decreased to 0.1 atmospheres, it decomposes to form carbon dioxide gas and water.
- 4) When iodine gas reacts with methane gas at very high temperatures,  $CH_3I$  gas and hydrogen iodide gas are formed.
- 5) When dinitrogen hexaiodide crystals are hit with a hammer, they spontaneously and explosively decompose to form nitrogen gas and iodine powder.
- 6) When hydrochloric acid gas reacts with gaseous ammonia, water vapor and solid ammonium chloride are formed.