**Complete Chemical Equations Quiz**

Write the complete chemical equation for each of the following (5 pt each):

1. The Haber-Bosch process is used to make most of the world’s ammonia for fertilizer and other purposes. It is performed by combining hydrogen gas and nitrogen gas to make gaseous ammonia. This reaction is performed at 450o C and at a pressure of 30 atmospheres. This reaction is highly exothermic.
2. Ozone, O3, is a powerful oxidizer that occurs in the atmosphere. When ozone gas is placed into contact with powdered carbon, carbon dioxide gas and oxygen gas are spontaneously formed. This reaction is not accompanied by a change in temperature.
3. If copper metal is placed into a solution of zinc nitrate, solid zinc will form as the copper is converted into a copper (II) nitrate solution.
4. In the thermite reaction, iron (III) oxide powder and aluminum metal are placed into a large crucible. When ignited, the result is an explosive reaction in which aluminum oxide dust and molten iron metal are formed.
5. Nitrogen triiodide powder is extremely sensitive to touch. If any pressure is applied to it at all (even a feather brushing against it!), it very explosively breaks down into nitrogen gas and iodine powder.