Honors Chemistry Hour\_\_\_\_\_ Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Dr. Wexler  
Determining the Empirical and Molecular Formula of a Compound Worksheet 2  
Date:

1. Ninhydrin is a compound that reacts with amino acids and proteins tp produce a dark-colored complex. It is used by forensic chemists and detectives to see fingerprints that might otherwise be invisible. Ninhydrin’s composition is 60.68 % carbon, 3.40% hydrogen and 35.92 % oxygen. What is the empirical formula?
2. Histamine is a substance that is released by cells in response to injury, infections, stings and materials that cause allergic responses, such as pollen. Histamine causes dilation of blood vessels and swelling due to accumulation of fluid in the tissues. People sometimes take antihistamine drugs to counteract the effects of histamine. A sample of histamine having a mass of 385 mg is composed of 208 mg of carbon, 31 mg of hydrogen and 146 mg of nitrogen. The molar mass of histamine is 111 g/mol. What is the molecular formula for histamine?