

CHEM 1100 Dr. Stone Chapter 3 worksheet 3

1. How many moles of sodium carbonate are in 50.5 grams of sodium carbonate?
2. How many grams of carbon dioxide are produced when 55 grams of pentane ( $C_5H_{12}$ ) are combusted?
3. How much oxygen is needed to burn 42 grams of butane ( $C_4H_{10}$ )?
4. How much water is produced when 122 grams of propane ( $C_3H_8$ ) is burned?
5. How much copper metal is produced when 5.4 grams of copper(I) sulfide reacts with oxygen to form copper metal and sulfur dioxide gas.
6. If you are making sandwiches and each sandwich needs one piece of cheese and two slices of bread, how many sandwiches can you make if you have 24 slices of cheese and 20 slices of bread? What will be leftover? How much will be leftover?
7. Sulfur trioxide and water react to form sulfuric acid ( $H_2SO_4$ ). How much sulfuric acid can be made from the reaction of 20 grams of sulfur trioxide and 10 grams of water?
8. How much water can be formed from the combustion of 26 grams of propane ( $C_3H_8$ ) with 52 grams of oxygen?