

**Worksheet: Mixed Problems—Mole/Mole
and Mole/Mass**

Name _____

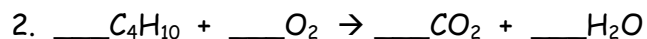
Answer each of the following questions using the equation provided. BE SURE TO BALANCE EACH EQUATION BEFORE SOLVING ANY PROBLEMS. SHOW ALL WORK.



- a. If 101 grams of copper is used, how many moles of copper (II) oxide will be formed?

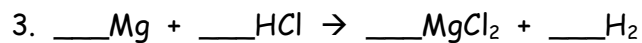
- b. If 5.25 moles of copper are used, how many moles of oxygen must also be used?

- c. If 78.2 grams of oxygen react with copper, how many moles of copper (II) oxide will be produced?



- a. How many moles of butane, C_4H_{10} , are needed to react with 5.5 moles of oxygen?

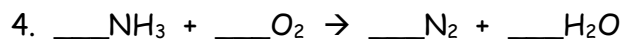
- b. How many grams of carbon dioxide will be produced if 3.5 moles of O_2 react?



a. What mass of HCl is consumed by the reaction of 2.50 moles of magnesium?

b. What mass of MgCl_2 is produced if 3.67 moles of HCl react?

c. How many moles of hydrogen gas are produced when 3.0 moles of magnesium react?



a. How many moles of oxygen react with 0.23 moles of NH_3 ?

b. How many grams of water will be produced if 0.55 moles of oxygen react?

c. How many moles of nitrogen gas will be produced if 12.6 grams of ammonia react?