

Name: _____

Date: _____

Chemistry
Mole Ratios WS

- I. Use the following balanced equation to answer these questions (show your work!):



1. If you react 2 moles of FeCl_2 , you will form 2 moles of FeCl_3 . If you react 4 moles of FeCl_2 , how many moles of FeCl_3 will you form?

2. If you react 1 mole of Cl_2 , you will need 2 moles of FeCl_2 . How many moles of FeCl_2 do you need to react 7 moles of Cl_2 ?

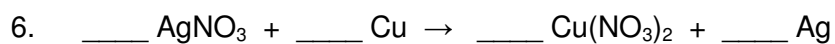
3. If you form 2.28 moles of FeCl_3 in a reaction, how many moles of FeCl_2 did you start with?

4. If you react 3.25 moles of FeCl_2 , how many moles of Cl_2 did you also react?

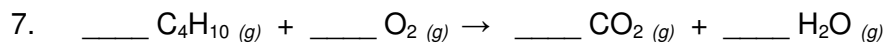
- II. Complete the following mole ratio calculations, balancing equations where necessary:



- a. Using the above equation, if 20.0 mol of Fe_2O_3 reacts with an excess of carbon monoxide, how many moles of carbon dioxide are formed?

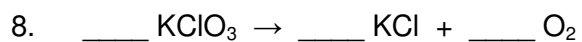


- a. When 1.17 mol of copper (II) nitrate are formed in this reaction, how many moles of copper were reacted?



- a. 0.244 mol of C_4H_{10} are burned in excess O_2 . How many moles of CO_2 will be formed?

- b. In the above reaction, how many moles of water vapor will be formed?



- a. How many moles of KClO_3 were reacted if a laboratory experiment gives off 2.1 mol O_2 ?

- b. How many moles of KCl were produced in the above experiment?