

NAME: \_\_\_\_\_

## STOICHIOMETRY WORKSHEET: Percentage Yield

Solve the following stoichiometry problems and write the correct answer with units. Round the number to 1 decimal point and remember you need to have balanced equations to work with.

1. Calculate the indicated quantity (X) for each of the following:

a. Theoretical yield= 20 g      Actual yield= 15 g      Percentage yield= X

ANSWER: \_\_\_\_\_

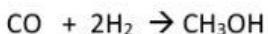
b. Theoretical yield= 1.5 g      Actual yield= X g      Percentage yield= 90%

ANSWER: \_\_\_\_\_

c. Theoretical yield= 5 g      Actual yield= 4.75 g      Percentage yield= X

ANSWER: \_\_\_\_\_

2. Methanol can be produced through the reaction of CO and H<sub>2</sub> in the presence of a catalyst.



If 75 g of CO react to produce 68.4 g CH<sub>3</sub>OH, what is the percentage yield of CH<sub>3</sub>OH?

ANSWER: \_\_\_\_\_

3. Aluminum reacts with excess Copper (II) Sulfate according to the reaction given below. If 1.85 g of Al react, and the percentage yield of Cu is 56.6%, what mass of Cu is produced?



ANSWER: \_\_\_\_\_

4. Quicklime, CaO, can be prepared by roasting limestone, CaCO<sub>3</sub>, according to the following reaction:



When 200 g of CaCO<sub>3</sub> are heated, the actual yield of CaO is 105 g. What is the percentage yield?

ANSWER: \_\_\_\_\_