

## Worksheet # C47: Limiting Reactants

1. What is a limiting reactant? \_\_\_\_\_

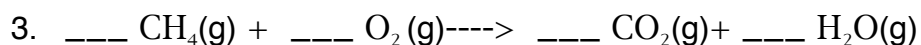
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2. What is an excess reactant? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



a. How many grams of  $\text{O}_2$  would you need if you wanted to make 54.9 grams of  $\text{CO}_2$  gas?

b. If you had 2.55 grams of  $\text{CH}_4(\text{g})$  and 8.29 grams of  $\text{O}_2(\text{g})$ ,

i. Which is the limiting reactant? \_\_\_\_\_

ii. Which is the excess reactant? \_\_\_\_\_

iii. How many grams of  $\text{CO}_2(\text{g})$  would you make?

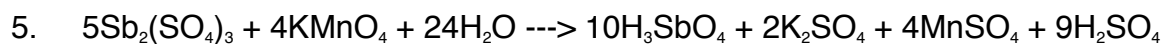


How many grams of  $\text{FeCl}_3$  could you make if you had to make 5.53 grams of  $\text{Cl}_2$  gas and 1.91 grams of Fe? First you need to answer the two questions below:

i. Which is the limiting reactant? \_\_\_\_\_

ii. Which is the excess reactant? \_\_\_\_\_

iii. Now you can figure out how many grams of  $\text{FeCl}_3$  you could make. \_\_\_\_\_



If you had 12.5 grams of  $\text{Sb}_2(\text{SO}_4)_3$  and 3.76 grams of  $\text{KMnO}_4$  and as much water as you needed,

i. Which is the limiting reactant? \_\_\_\_\_

ii. Which (besides the water) is the excess reactant? \_\_\_\_\_

iii. How many grams of  $\text{H}_2\text{SO}_4$  would you make? \_\_\_\_\_