

Limiting Reactant Problems Practice



a) How many grams of iron can be made from 119 g of Fe_2S_3 and 12.7 g C? Identify the limiting reactant and the excess reactant.

_____	_____	_____	_____	=	_____
_____	_____	_____	_____	=	_____

b) How many grams of our excess reactant are used up after the reaction runs to completion?

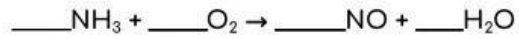
_____	_____	_____	_____	—	_____
_____	_____	_____	_____	—	_____

c) How many grams of our excess reactant are left over after the reaction runs to completion?

_____	-	_____	=	_____
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d) Suppose you only produce 35.6 g of Fe. What is your % yield? Ans _____

_____	_____	_____	_____	—	_____
_____	_____	_____	_____	—	_____



In the reaction above, 3.25 grams of NH_3 are allowed to react with 3.50 grams of O_2

A. Balance the equation and determine which is the limiting reactant from the reaction above by calculating how many grams of H_2O could be produced from each reactant.

$$\begin{array}{|c|c|c|} \hline & & \\ \hline \end{array} = \quad$$

B. How many grams of H_2O are formed during the reaction?

C. How much of our excess reactant gets used up in the process of making this many grams of H_2O ?

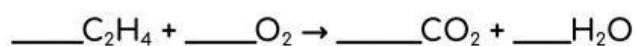
A diagram showing a horizontal line with three vertical lines intersecting it, followed by an equals sign and a blank horizontal line.

D. How much of our excess reactant remains after the reaction runs to completion?

_____ - _____ = _____

E. If this reaction was observed in the lab and it was found that only 2.0 grams of H_2O were produced, what would be the % yield of H_2O ?

$$\frac{\quad}{\quad} = \frac{\quad}{\quad}$$



In the reaction above, a scientist conducted an experiment with 0.176 moles of ethylene (C_2H_4) and 0.102 moles of O_2 .

A. Balance the equation and determine which is the limiting reactant from the reaction above by calculating how s moles of H_2O can be produced by each reactant. Identify both your Limiting reactant and your excess reactant.

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	=	

B. How many moles of H_2O are produced from the reaction? What is your limiting reactant and what is your excess reactant?

C. How many moles of our excess reactant gets used up in the process of making this many moles of H_2O ?

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D. How many moles of our excess reactant remain after the reaction runs to completion?

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E. If this reaction was observed in the lab and it was found that only 0.055 moles of H_2O were produced, what would be the % yield of H_2O ? Round to nearest hundredth.

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