Happy New Year!



The sum =

Complete one problem on this page and pass it to the person on your left. Show all your calculations. Pay close attention to your significant figures.

Equation $4\ NH_3 + 5\ O_2 \rightarrow 4\ NO + 6\ H_2O$		
Question	*Calculation*	*Answer*
How many moles of NH_3 are needed to produce 3.0 moles of water?		
What mass of oxygen will react with 0.25 mol NH_3?		
How many moles of oxygen are required to produce 34.6 g of water?		
If 7.4 g of water is produced, what mass of nitrogen monoxide is also produced?		

1. *Add up the digits in the ones column of each of your answers.*
2. *Write your sum in the box at the top of this sheet.*
3. *Check your sum with the teacher.*

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Equation $CH_4 + 4\ Cl_2 \rightarrow CCl_4 + 4\ HCl$		
Question	*Calculation*	*Answer*
How many moles of HCl would be produced when 2 moles of CH_4 react?		
What mass of Cl_2 is needed to react with 0.0046 mol of CH_4?		
If 177 g of Cl_2 react, how many moles of CCl_4 are produced?		
What mass of HCl is formed when 2.7 g of CCl_4 is also produced?		

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Equation $C_3H_8 + 5\ O_2 \rightarrow 3\ CO_2 + 4\ H_2O$		
Question	*Calculation*	*Answer*
If 30 moles of CO_2 are produced, how many moles of O_2 reacted?		
When 4.3 moles of oxygen react, what mass of water is produced?		
If 1081 g of CO_2 are produced, how many moles of C_3H_8 reacted?		
What mass of C_3H_8 is needed to react with 115 g of O_2?		

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Complete one problem on this page and pass it to the person on your left. Show all your calculations. Pay close attention to your significant figures.

Equation $2\ Al + 3\ MnCl_2 \rightarrow 2\ AlCl_3 + 3\ Mn$		
Question	*Calculation*	*Answer*
How many moles of $MnCl_2$ react to form 14 moles of $AlCl_3$?		
How many grams of aluminum are required to react with 1.0 mol $MnCl_2$?		
How many moles of manganese form when 1067 g of aluminum chloride is produced?		
What mass of $MnCl_2$ reacts to form 61.1 g of manganese?		

o mass-mass

1. *Add up the digits in the ones column of each of your answers.*
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3. *Check your sum with the teacher.*