

x g given	1 mol given	# mol wanted	molar mass g wanted
	g given ↑ molar mass	# mol given ↑ balanced eq.	1 mol wanted

1. $C_3H_8 + 5O_2 \rightarrow 3CO_2 + 4H_2O$
 20.2g of C_3H_8 are burned in the air. How many grams of CO_2 are formed?

20.2g C_3H_8	1 mol C_3H_8	3 mol CO_2	44.009g CO_2
÷ 44.009g C_3H_8 ↑ molar mass	÷ 1 mol C_3H_8	÷ 1 mol CO_2	

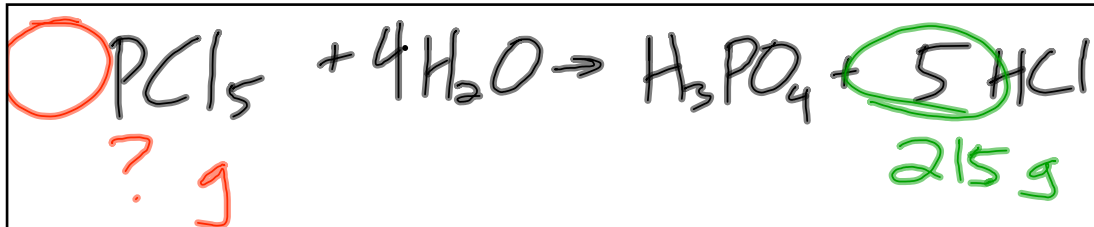
= 60.48 g CO_2

$CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$

500.g given

500g CH_4	1 mol CH_4	1 mol CO_2	44.009g CO_2
÷ 16.043g CH_4	÷ 1 mol CH_4	÷ 1 mol CO_2	

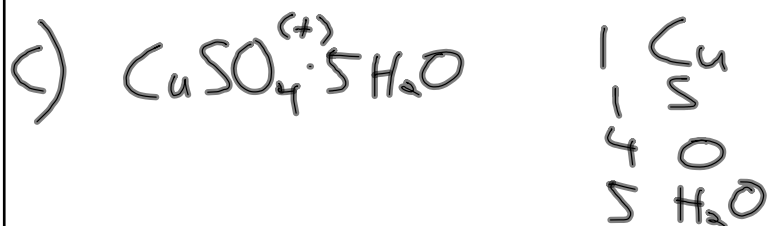
= 1372 g CO_2



215 g HCl	1 mol HCl	1 mol PCl₅	208.23 g PCl₅
÷	36.46 g HCl	5 mol HCl	1 mol PCl₅
= 246 g PCl ₅			

Molar Conversions Stations Lab

A)
$$\frac{8 \text{ g Al} \left| \frac{1 \text{ mol Al}}{26.978 \text{ g Al}} \right| 6.02 \times 10^{23} \text{ atoms Al}}{1 \text{ mol Al}}$$



x g CuSO₄ · 5H₂O	1 mol CuSO₄ · 5H₂O	5 mol H₂O	g H₂O
	g CuSO₄ · 5H₂O	1 mol CuSO₄ · 5H₂O	1 mol H₂O