CK CHEMISTRY



Retrieval Practice: Year 12 Number 2

Rules: Never look at your notes for retrieval practice! Do as many as you can, even if they are educated guesses. When you have tried (hard!) to answer them all, check the mark scheme and rate each question:

(0	0	Easy,	remembered	perfectly
/	\sim	ノノ	,	remembered	periectly

() Harder - could remember part of it or was familiar when I saw the answer

Very hard - didn't recognise the answer so need to go back over this

	Question	Rating
1	Calculate the number of moles of Na ₂ CO ₃ in 9.01 kg	
2	Draw a displayed formula of propene	
3	Give the formula of iron (III) nitrate	
4	Write a balanced equation for the reaction between copper (II) oxide and hydrochloric acid	
5	Draw a dot and cross diagram to show the bonding in magnesium chloride	
6	Calculate the empirical formula of a compound containing 82.76% carbon and 17.24% hydrogen by mass	
7	Describe the test for carbon dioxide gas	
8	Balance the following equation: $FeS_2 + O_2 \rightarrow Fe_2O_3 + SO_2$	
9	Calculate the M_r for $Cr_2(SO_4)_3$	
10	Define oxidation and reduction in terms of electron transfer	

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Answers:

	Question		
	Calculate the number of moles of Na ₂ CO ₃ in 9.01 kg		
1	Mr = 106		
	Mol = 9010/106 = 85		
	Draw a displayed formula of propene		
2	C = C - C - H		
	H H		
3	Give the formula of iron (III) nitrate		
	Fe(NO ₃) ₃		
	Write a balanced equation for the reaction between copper (II) oxide and		
4	hydrochloric acid $CuO + 2HCl \rightarrow CuCl_2 + H_2O$		
	Draw a dot and cross diagram to show the bonding in magnesium chloride		
	72+		
5			
	Calculate the empirical formula of a compound containing 82.76% carbon and		
	17.24% hydrogen by mass		
	C H		
6	82.76/12 17.24/1 6.897 17.24		
	1 2.5		
	2 5 C ₂ H ₅		
7	Describe the test for carbon dioxide gas		
	(Bubble through) limewater - turns cloudy/milky		
	Balance the following equation:		
8	$FeS_2 + O_2 \rightarrow Fe_2O_3 + SO_2$ $2FeS_2 + 5.5O_2 \rightarrow Fe_2O_3 + 4SO_2$		
	OR $4\text{FeS}_2 + 110_2 \rightarrow 2\text{Fe}_2\text{O}_3 + 8\text{SO}_2$		
9	Calculate the M _r for Cr ₂ (SO ₄) ₃		
7	392.3		
10	Define oxidation and reduction in terms of electron transfer		
	Oxidation = loss of electrons, reduction = gain of electrons		