CHEM1001	2006-J-6	June 2006	22/01(a)	
• An unknown compound contains carbon and hydrogen only. If 0.0956 g of the compound is burned in oxygen, 0.300 g of CO ₂ and 0.123 g of H ₂ O are isolated. What is the unknown compound's empirical formula?			Marks 4	
	Answer:			
If its molar mass is found to be 70.1 g mol ⁻¹ , what is its molecular formula?				
	Answer:		_	
• What amount (in mol) of chloride ion is contained in 100 mL of 0.25 M magnesium chloride solution?			1	
	Answer:		_	
• If 25.0 mL of 1.50 M hydrochloric acid is diluted to 500 mL, what is the molar concentration of the diluted acid?			1	
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	Answer:			