

Chemistry 1 a Week Activity		Higher Answers	48 th Week
Name: Class:			
Calculate the percentage by mass of nitrogen in ammonia (NH ₃). Relative atomic masses (Ar): H = 1; N = 14 You must show how you work out your answer. $14 \div 17 \times 100 = 82.3\%$			
Give the ionic equation for a neutralisation reaction. $H^+ + OH^- \rightarrow H_2O$		Name the salt produced when ammonia reacts with hydrochloric acid. Ammonium chloride	
Balance the following equations. $2Rb(s) + Li_2SO_4(aq) \rightarrow Rb_2SO_4(aq) + 2Li(s)$ $2NO + O_2 \rightarrow 2NO_2$ $C_5H_8O_2 + 2NaH + 2HCl \rightarrow C_5H_{12}O_2 + 2NaCl$			
Ethanoic acid is a weak acid. Why is ethanoic acid considered a weak acid? <u>As it only partially dissociates/ ionises in solution.</u>		State the functional group for carboxylic acids. COOH State the formula of methanoic acid. HCOOH	
Calculate the atom economy for the formation of lithium oxide in this reaction. $Li_2CO_3 \rightarrow Li_2O + CO_2$ You must show your working. (relative atomic masses: C = 12, O = 16, Li = 7) (relative formula mass: lithium oxide = 30) $Atom\ economy = \frac{30}{74} \times 100$ $Atom\ economy = 40.5\%$ Atom economy = 40.5 %			
Give one reason why reactions with a high atom economy are used in industry. Any one of the following. • More economic. • Less waste products produced/ less waste. • Uses few/ fewer resources.			