

Chemistry 1 a Week Activity Higher Answers		37 th Week
Name: Class:		
State the formula of Ammonium carbonate. (NH₄)₂CO₃	What is the name given to reactions that release heat energy? Exothermic	
Ethene reacts with steam. The equation for the reaction is: $\text{C}_2\text{H}_4 + \text{H}_2\text{O} \rightarrow \text{C}_2\text{H}_5\text{OH}$ Name the catalyst used in this reaction. Accept any of the following: Phosphoric acid Phosphoric (V) acid H₃PO₄		
State the colour change that is observed when bromine water is shaken with ethene in a test tube. From <u>orange</u> to <u>colourless</u> . <u>Do not accept clear.</u>	State the electronic configurations of the following: K⁺: 2, 8, 8 S²⁻: 2, 8, 8	
What is a strong acid? An acid that fully dissociates/ ionises in solution.	State the formula of an ammonium ion. NH₄⁺	
The equation for the reaction between magnesium hydroxide and hydrochloric acid is: $\text{Mg}(\text{OH})_2 (\text{s}) + 2\text{HCl} (\text{aq}) \rightarrow \text{MgCl}_2 (\text{aq}) + 2\text{H}_2\text{O} (\text{l})$ A student investigates how much magnesium hydroxide is needed to neutralise 100 cm ³ of hydrochloric acid with a concentration of 0.0968 mol/dm ³ . He uses 0.29 g of magnesium hydroxide to neutralise the hydrochloric acid. i. Calculate the amount, in moles, of HCl in the hydrochloric acid. 0.0968 × 0.1 = 0.00968 mol or 9.68 × 10⁻³ mol ii. Calculate the amount, in moles, of Mg(OH) ₂ used by the student. (Mr of Mg(OH) ₂ = 58) 0.29 ÷ 58 = 0.005 mol		