

Chemistry 1 a Week Activity Higher Answers		35 th Week
Name: Class:		
In an experiment 25.0 cm³ of 0.0100 mol/dm³ ethanoic acid, CH₃COOH, was titrated with 0.0200 mol/dm³ sodium hydroxide solution, NaOH. $\text{CH}_3\text{COOH} + \text{NaOH} \rightarrow \text{CH}_3\text{COONa} + \text{H}_2\text{O}$ Calculate the volume, in cm³, of 0.0200 mol/dm³ sodium hydroxide solution needed to neutralise the ethanoic acid in this experiment. Moles of ethanoic acid = Volume (dm³) × concentration Moles of ethanoic acid = 0.025 (dm³) × 0.0100 Moles of ethanoic acid = 0.00025 mols Volume = moles ÷ concentration Volume = 0.00025 ÷ 0.0200 Volume = 0.0125 dm³ 0.0125 dm³ × 1000 = 12.5 cm³ Volume = 12.5 cm³		
HCl is a strong acid. What is a strong acid? HCl fully dissociates/ ionises in solution.	In what two states will ionic compounds conduct electricity? <u>Molten and aqueous</u>	
Graphite can be separated into layers. What property of graphite is this displaying? Weak intermolecular force	Diamonds are often used in jewellery. Give one other use of diamonds. Drill bits or cutting tools.	
Draw bonds to complete the displayed structure of ethene. $\begin{array}{cc} \text{H} & \text{H} \\ & \\ \text{C} & = & \text{C} \\ & \\ \text{H} & \text{H} \end{array}$	Describe how you could show that a sample contains potassium and sodium ions. Test: Flame test. Result: Potassium will give a purple/lilac flame. Sodium will give a yellow flame.	
Which equation shows the formation of a Group 2 metal ion? M represents a Group 2 metal and e⁻ represents an electron. A M + e⁻ → M⁺ B M²⁺ + 2e⁻ → M²⁺ C M → M⁺ + e⁻ D M → M²⁺ + 2e⁻	Magnesium reacts with chlorine. Magnesium chloride is made. What is the balanced symbol equation for this reaction? A Mg + Cl → MgCl B Mg + Cl₂ → MgCl₂ C 2Mg + Cl₂ → 2MgCl D 2Mg + Cl₂ → Mg₂Cl₂	