# 2.14 Reactivity, Acids and Salts: 10-minute Pack

AQA 8464 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** The pH scale runs from 0 to 14 and can be measured using universal indicator or a pH meter.
The table shows the approximate pH of some substances:
Lemon juice: pH 2
Pure water: pH 7
Milk: pH 6.5
Oven cleaner: pH 13

**(a)** State the pH range of an acidic solution. **(1)**

**(b)** State the pH of a neutral solution. **(1)**

**(c)** Using the table, classify each substance as acidic, neutral or alkaline. **(2)**

**(Total for Question 1 is 4 marks)**


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**2** Balance each of the following equations by writing the correct number in front of each formula (leave a blank if the number is 1).

**(a)** __Zn + __HCl -> __ZnCl2 + __H2 **(1)**

**(b)** __CuO + __C -> __Cu + __CO2 **(2)**

**(c)** __Na + __H2O -> __NaOH + __H2 **(1)**

**(Total for Question 2 is 4 marks)**


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# Mark scheme · 2.14 Reactivity, Acids and Salts: 10-minute Pack

## Question 1

(a) pH less than 7 (0-6) (oe) **B1**

**(a) Answer: pH 0-6 (less than 7).**

(b) pH 7 **B1**

**(b) Answer: pH 7**

(c) lemon juice and milk: acidic (both needed) **B1**

(c) pure water: neutral; oven cleaner: alkaline (both needed) **B1**

**(c) Answer: Lemon juice: acidic. Milk: acidic. Pure water: neutral. Oven cleaner: alkaline.**

## Question 2

(a) $Zn + 2HCl \rightarrow ZnCl_2 + H_2$ (cao) **B1**

**(a) Answer: $Zn + 2HCl \rightarrow ZnCl_2 + H_2$**

(b) correct ratio of Cu identified (2 CuO to 2 Cu) or correct use of 1 C to 1 $CO_2$ **M1**

(b) $2CuO + C \rightarrow 2Cu + CO_2$ (fully balanced, cao) **A1**

**(b) Answer: $2CuO + C \rightarrow 2Cu + CO_2$**

(c) $2Na + 2H_2O \rightarrow 2NaOH + H_2$ (cao) **B1**

**(c) Answer: $2Na + 2H_2O \rightarrow 2NaOH + H_2$**


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