

Which of these things is an element?

- |                 |                |
|-----------------|----------------|
| <b>A</b> salt   | <b>B</b> water |
| <b>C</b> oxygen | <b>D</b> air   |

Which of these metals is not a pure element?

- A** gold
- B** copper
- C** silver
- D** bronze

The smallest part of an element is called:

- |                      |                      |
|----------------------|----------------------|
| <b>A</b> an atom.    | <b>B</b> a molecule. |
| <b>C</b> a compound. | <b>D</b> an ion.     |

An element is something that:

- A** can be split up by a chemical reaction.
- B** cannot be split up by a chemical reaction.
- C** is made up of different kinds of atom.
- D** is a mixture of atoms and molecules.

An atom is:

- A** the smallest particle that can exist.
- B** a group of particles that are all the same.
- C** the smallest particle of a compound that exists under normal conditions.
- D** the smallest particle of an element that exists under normal conditions.

The number of types of atom in a compound is:

- A** only one.
- B** one or two.
- C** two or more.
- D** three or more.

How many different elements are there in the compound with the formula  $\text{NH}_3$ ?

- A one
- B two
- C three
- D four

1. An element is a substance that:
  - A. is made of two types of atoms.
  - B. cannot be broken down into other substances.
  - C. contains water.
  - D. is a metal used in kettles.
2. Identify the list that contains only non-metals.
  - A. Oxygen, carbon, lithium
  - B. Helium, hydrogen, fluorine
  - C. Lithium, magnesium, zinc
  - D. Helium, hydrogen, sodium

The correct way to write the chemical symbol for sodium is

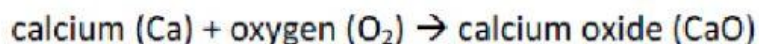
- A. NA
- B. Na
- C. na
- D. N@

Complete this word equation:

copper + oxide  $\rightarrow$  \_\_\_\_\_

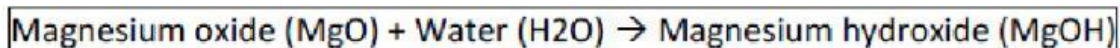
- A. copper sulphate
- B. copper oxide
- C. copper oxinate
- D. copper carbonate

Below shows a reaction forming a compound. What is true about the reaction?



- A. The properties of the elements are the same as the compound formed.
- B. The properties of compound are same as properties of elements.
- C. The properties of elements are different from the properties of compound formed.
- D. The elements can be easily separated from the compound.

Magnesium oxide (MgO) is dissolved in water. Below shows the equation of the reaction. What best describes the properties of the solution formed?



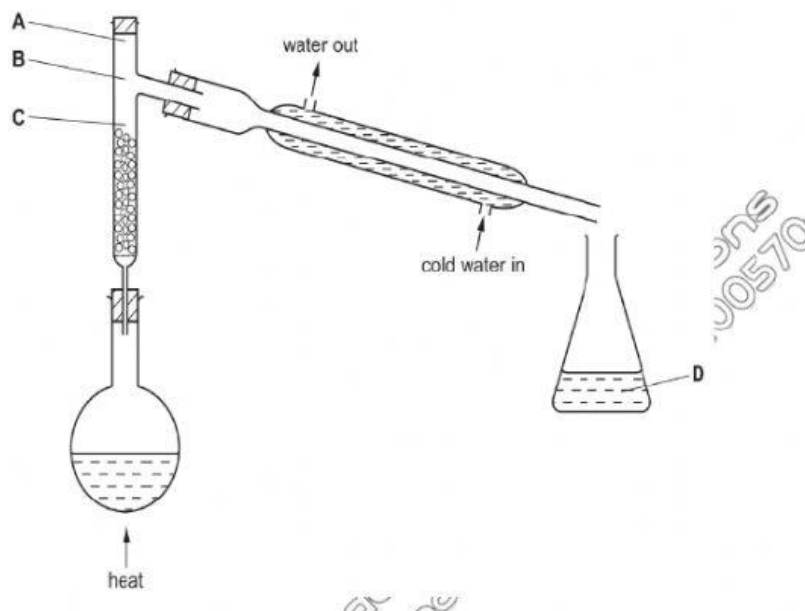
- A. strong acid
- B. neutral
- C. strong base
- D. weak acid

Base = alkaline

M/J 15/P12/Q1, M/J 15/P11/Q1, O/N 10/P12/Q3, O/N 10/P11/Q5

The fractional distillation apparatus shown is being used to separate a mixture of two liquids. A thermometer is missing from the apparatus.

Where should the bulb of the thermometer be placed?



**M/J 13/P12/Q2**

Which process involves boiling a liquid and condensing the vapour?

- A crystallisation      B distillation      C evaporation      D filtration

**M/J 13/P12/Q1**

Which mixture could best be separated by using a separating funnel?

- A oil and sand      C sodium chloride and sand  
B oil and water      D sodium chloride and water



Rock salt is a mixture of sand and sodium chloride.

Sodium chloride is soluble in water but not in hexane.

Sand is insoluble in both water and hexane.

What is required to separate the sand from the sodium chloride?

- 1 filter paper
- 2 fractionating column
- 3 hexane
- 4 water

- A 1 and 3      B 1 and 4      C 2 and 3      D 2 and 4

Which statement describes a chemical property of aluminium oxide,  $Al_2O_3$ ?

- A It reacts with acids but not with bases.  
B It reacts with acids and bases.  
C It reacts with bases but not with acids.  
D It reacts with water.

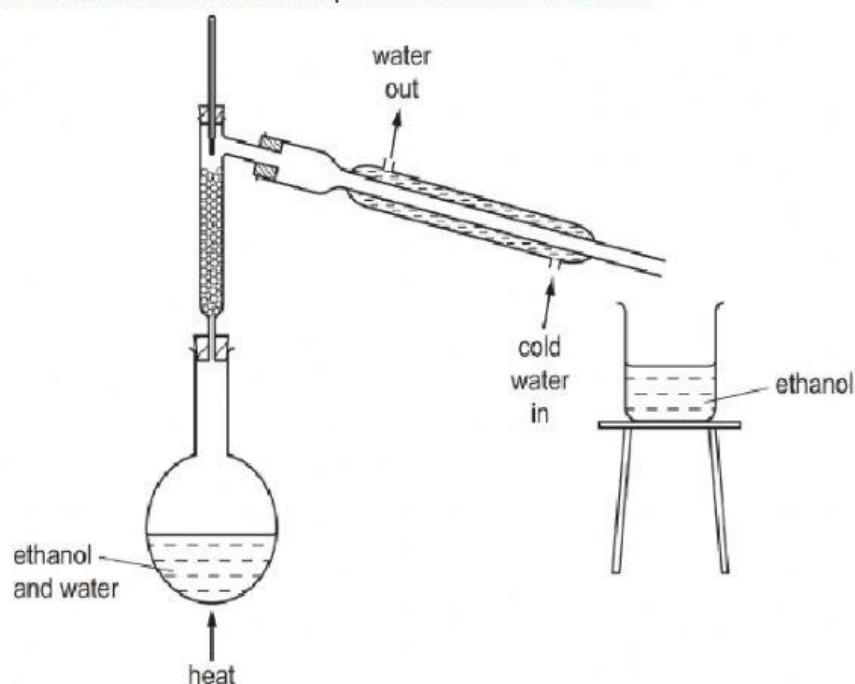
Which method should be used to separate a mixture of two liquids?

- A crystallisation  
B electrolysis  
C filtration  
D fractional distillation



**O/N 15/P12/Q1**

The diagram shows the fractional distillation of an aqueous solution of ethanol.



Which statement explains why ethanol is collected as the distillate?

- A Ethanol has a higher boiling point than water.
- B Ethanol has a higher melting point than water.
- C Ethanol has a lower boiling point than water.
- D Ethanol has a lower melting point than water.

**3** A student separates salt from a mixture of salt and sand.

What is the correct order of steps for the student to take?

- A filter → evaporate → shake with water
- B filter → shake with water → evaporate
- C shake with water → evaporate → filter
- D shake with water → filter → evaporate

## M/J 14/P12/Q1

Which process is suitable for obtaining the water from an aqueous solution of sugar?

- A crystallisation  
B distillation  
C filtration  
D use of a separating funnel

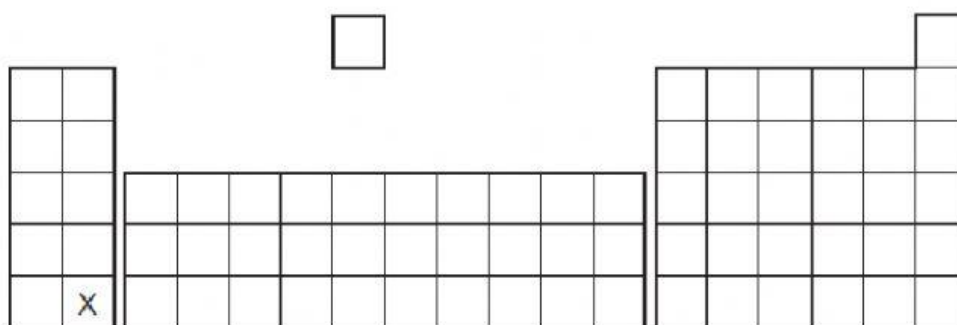
An element E is burned in air. A white solid oxide is formed.

The oxide is tested with damp red litmus paper. The paper turns blue.

What is element E?

- A** calcium  
**B** carbon  
**C** iodine  
**D** sulfur

22 The diagram shows the position of an element X in the Periodic Table.



What is the correct classification of element X and its oxide?

	X	oxide of X
A	metal	acidic
B	metal	basic
C	non-metal	acidic
D	non-metal	basic

Substances can be pure or they can be mixtures.

P2 – Chapter 6 revision

Which of these is a mixture?

- A. Oxygen
- B. Carbon dioxide
- C. Gold
- D. Air

Which of the following separation methods relies on differences in boiling points?

- A. Fractional distillation and simple distillation
- B. Fractional distillation and filtration
- C. Simple distillation and paper chromatography
- D. Filtration and paper chromatography

What is the chemical symbol for the element mercury?

- A. Hg
- B. He
- C. Me
- D. M

The reactions of four different oxides W, X, Y and Z are shown.  
W reacts with hydrochloric acid but not sodium hydroxide.  
X reacts with both hydrochloric acid and sodium hydroxide.  
Y does not react with either hydrochloric acid or sodium hydroxide.  
Z reacts with sodium hydroxide but not hydrochloric acid.  
Which row shows the correct types of oxide?

	Acidic	Basic	Amphoteric	Neutral
A.	W	Z	X	Y
B.	X	Y	W	Z
C.	Z	X	Y	W
D.	Z	W	X	Y

How many different types of elements are in a substance that has the formula  $\text{N}_2\text{O}_4$ ?

- A. 6
- B. 4
- C. 2
- D. 3

What is the name of the compound with the formula  $\text{MgBr}_2$ ?

P2 – Chapter 6 revision

- A. Magnesium dibromide
- B. Magnesium bromine
- C. Magnesium bromide
- D. Monomagnesium dibromide