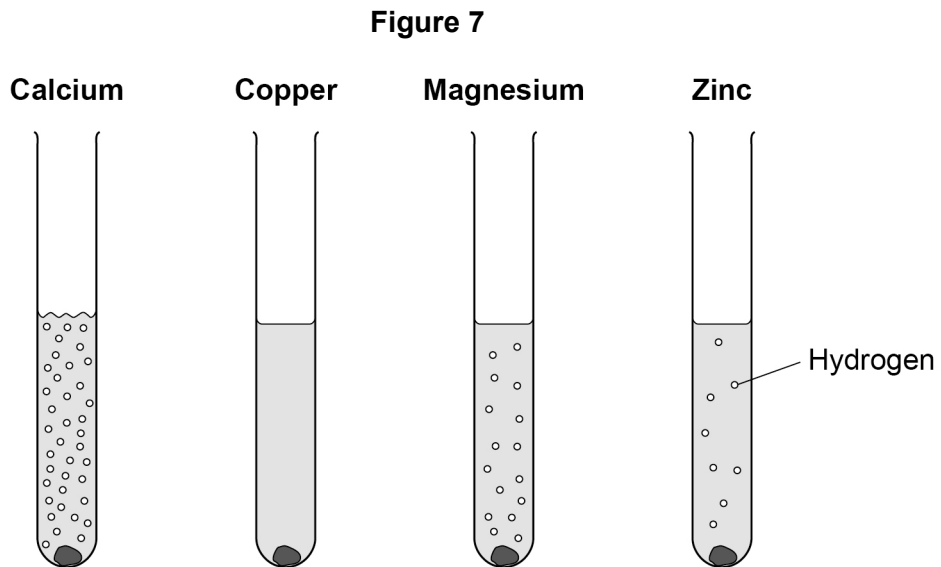


0 6

This question is about reactions of metals.

**Figure 7** shows what happens when calcium, copper, magnesium and zinc are added to hydrochloric acid.



0 6 . 1

What is the order of decreasing reactivity of these four metals?

[1 mark]

Tick (✓) **one** box.

Zn Ca Cu Mg

Ca Cu Mg Zn

Cu Zn Ca Mg

Ca Mg Zn Cu



A student wants to make a fair comparison of the reactivity of the metals with hydrochloric acid.

**0 6 . 2** Name **two** variables that must be kept constant.

**[2 marks]**

1 \_\_\_\_\_

\_\_\_\_\_

2 \_\_\_\_\_

\_\_\_\_\_

**0 6 . 3** What is the independent variable in this reaction?

**[1 mark]**

\_\_\_\_\_

\_\_\_\_\_

**0 6 . 4** Predict the reactivity of beryllium compared with magnesium.

Give a reason for your answer.

Use the periodic table.

**[2 marks]**

\_\_\_\_\_

Reason \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**0 6 . 5** A solution of hydrochloric acid contains 3.2 g of hydrogen chloride in 50 cm<sup>3</sup>

Calculate the concentration of hydrogen chloride in g per dm<sup>3</sup>

**[3 marks]**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Concentration = \_\_\_\_\_ g per dm<sup>3</sup>



Question	Answers	Extra information	Mark	AO / Spec. Ref.
06.1	Ca Mg Zn Cu		1	AO3 5.4.1.2
06.2	any <b>two</b> from: <ul style="list-style-type: none"> <li>• mass (of metal / element)</li> <li>• surface area (of metal / element)</li> <li>• concentration (of acid)</li> <li>• volume (of acid)</li> <li>• temperature (of acid)</li> </ul>	allow weight  ignore size ignore length  ignore pH ignore strength  ignore room temperature	2	AO3 5.4.1.2
06.3	(type of) metal / element		1	AO2 5.4.1.2



