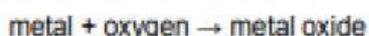


The general equations for the reactions of some metals are shown below.



Use these formulae to help you to answer the questions: AlCl_3 , Ca(OH)_2 , CuO , HCl , LiOH , Mg(OH)_2 , MgSO_4 , ZnO .

(*Hint:* Ca(OH)_2 contains 1 calcium atom, 2 oxygen atoms and 2 hydrogen atoms. The '2' outside of the bracket doubles everything inside the bracket.)

- 1 Balance the following equations by putting numbers on the lines in front of the symbols and formulae:



- 2 Complete the equations by adding the formulae of the product(s).

Balance the equations, if necessary.

Use the general equations and the formulae at the top of the page to help you.



- 3 Write balanced equations for the following reactions. Some formulae are given above to help you.

a zinc reacting with oxygen

b lithium reacting with water

c aluminium reacting with hydrochloric acid

- 4 Blocks of magnesium are attached to the surface of large items made from steel to prevent rusting. The magnesium slowly reacts with water to form magnesium hydroxide and hydrogen.

Write the balanced equation for the reaction between magnesium and water.

1 An unreactive metal used in jewellery.

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2 Metals like iron and copper will _ _ _ _ _ with oxygen in the air.

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3 The positively charged particle in an atom's nucleus is a _ _ _ _ _.

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4 This gas is formed when magnesium reacts with dilute sulfuric acid.

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5 This acid reacts with zinc to form zinc nitrate.

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6 This metal reacts readily with water, oxygen and dilute acids.

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7 The number of protons and neutrons in an atom is its _ _ _ _ _ number.

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8 The reactivity series is a list of _ _ _ _ _ in order of reactivity.

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