

Name:

Class:



63.0 g of magnalium contains 3.15 g of magnesium.

Calculate the percentage by mass of magnesium in the magnalium.

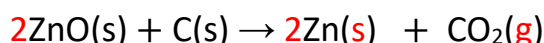
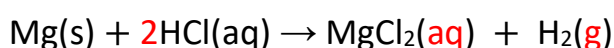
$$3.15 \div 63 = 0.05 \times 100 = 5\%$$

Water is one of two substances needed for iron to rust.

Give the name of the other substance needed for iron to rust.

Oxygen

Complete and balance the following equations.



Potassium sulfate contains potassium ions, K^+ , and sulfate ions, SO_4^{2-} .

Write the formula of potassium sulfate.



Aluminium oxide, Al_2O_3 , is made up of ions.

Give the number of ions in the formula Al_2O_3 .

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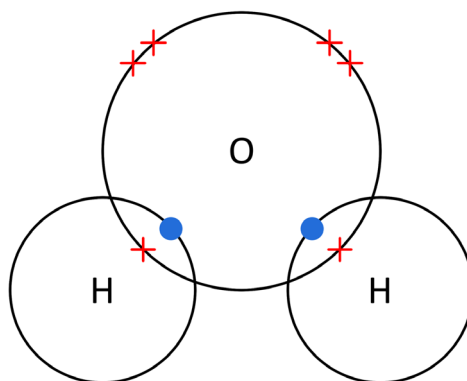
Give the formula of a molecule of ammonia.



Give the formula of an ammonium ion.



Complete the dot and cross diagram of a molecule of water, H_2O . Show outer shell electrons only.



Accept any correct version of the above diagram.

In an experiment, the actual yield of a product is always less than the theoretical yield. Give **two** reasons why the percentage yield is never 100%.

Accept any two correct versions of the following reasons:

1. The reaction may be reversible or incomplete.
2. You lose some product during handling and separation.
3. There could be unwanted side reactions.
4. There could be impure or be contaminated reactants.

What ion makes a solution acidic?

Hydrogen or H^+

What is the electronic configuration of a magnesium 2+ ion.

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