1. Some word-equations are given below.

magnesium + zinc sulphate → magnesium sulphate + zinc

zinc + copper nitrate → zinc nitrate + copper

calcium + magnesium chloride → calcium chloride + magnesium

* 1. Study the word-equations and make a small reactivity series by arranging the four metals magnesium, copper, calcium and zinc in order of their reactivity starting with the most reactive. [4]

|  |  |
| --- | --- |
| **Most reactive metal** |  |
| **Second most reactive metal** |  |
| **Third most reactive metal** |  |
| **Fourth most reactive metal** |  |

* 1. Look at the completed table. If copper is mixed with magnesium sulphate, no reaction happens. Why is it so? [1]

* 1. State whether zinc sulphate, copper nitrate and magnesium chloride are acids, bases or salts? [1]

* 1. Word-equations for three chemical reactions are given in this question. What are these kind of chemical reactions called in which one element in a compound is replaced by another element? [1]

**SOLUTIONS**

Q1a:

calcium

magnesium

zinc

copper

Q1b:

Because copper is less reactive than magnesium so copper will not be able to displace magnesium from the magnesium salt.

Q1c:

They are salts.

Q1d:

Displacement reactions