

Which compounds are soluble?

This task is about compounds that are "soluble".

Soluble is being able to dissolve with another substance such as water. Insoluble is not being able to dissolve with another substance. To test which compounds were soluble in water Robyn took a pinch of each and tried to dissolve it. Her results are in the table below.

✓ indicates the compound was soluble

x indicates the compound was insoluble

| | | | |
|-----------------------|----------------------|-----------------------|---------------------|
| sodium carbonate ✓ | sodium sulphate ✓ | sodium hydroxide ✓ | sodium nitrate ✓ |
| copper carbonate x | copper sulphate ✓ | copper hydroxide x | copper nitrate ✓ |
| calcium carbonate x | calcium sulphate x | calcium hydroxide x | calcium nitrate ✓ |
| potassium carbonate ✓ | potassium sulphate ✓ | potassium hydroxide ✓ | potassium nitrate ✓ |

Use the table to determine whether each of the following statements are **true** or **false**, and name all the compounds which support your answer.

a) i) All **sodium** compounds are soluble. *True / False*

ii) Name all the **sodium** compounds that support your answer.

b) i) Most **sulphate** compounds are soluble. *True / False*

ii) Name all the **sulphate** compounds that support your answer.

c) i) All **copper** compounds are insoluble. *True / False*

ii) Name all the **copper** compounds that support your answer.

d) i) All **nitrate** and **potassium** compounds are soluble. *True / False*

Name all the **nitrate** compounds that support

Name all the **potassium** compounds that support

ii) your answer.

your answer.