

Worksheet 6.2 Word Equations

1. Write the chemical equations and balance each of the following word equations.

- a) Aluminum metal reacts with iron (II) oxide powder to produce aluminum oxide solid and iron metal.

- b) Aluminum sulphate solution and calcium hydroxide solution produce a precipitate of aluminum hydroxide and solid calcium sulphate.

- c) Ammonia gas (NH_3) plus oxygen gas yields nitrogen monoxide gas plus water vapour.

- d) Calcium hydroxide solution and carbon dioxide gas yields solid calcium carbonate and liquid water.

- e) Aqueous iron (III) chloride and sodium carbonate solution yields aqueous sodium chloride and a precipitate of iron (III) carbonate.

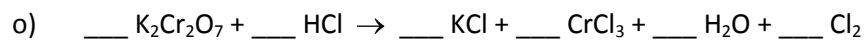
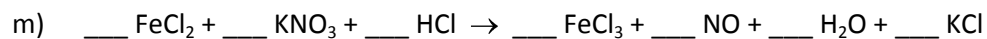
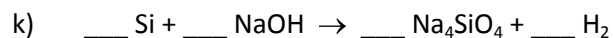
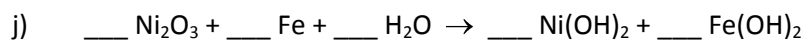
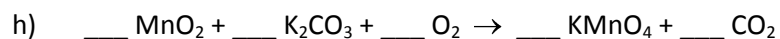
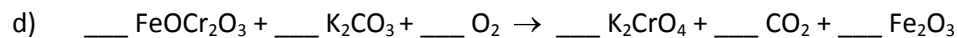
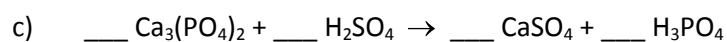
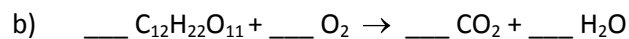
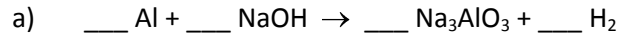
- f) Solid iron (III) oxide and carbon monoxide gas yields iron metal and carbon dioxide gas.

- g) Magnesium carbonate solution plus aqueous hydrochloric acid (HCl) yields magnesium chloride solution plus liquid water and carbon dioxide gas.

- h) Silicon dioxide solid plus aqueous hydrofluoric acid (HF) yields solid silicon tetrafluoride plus liquid water.

- i) Aqueous sodium hydroxide and carbon dioxide gas yields sodium carbonate solution and liquid water.

2. Balance the following chemical equations.



Answers to Worksheet 6.1 Writing and Balancing Equations

1. Write the chemical equations and balance each of the following word equations.

- a) Aluminum metal reacts with iron (II) oxide powder to produce aluminum oxide solid and iron metal.



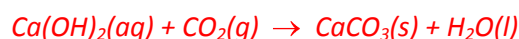
- b) Aluminum sulphate solution and calcium hydroxide solution produce a precipitate of aluminum hydroxide and solid calcium sulphate.



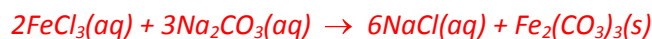
- c) Ammonia gas (NH₃) plus oxygen gas yields nitrogen (II) oxide gas plus water vapour.



- d) Calcium hydroxide solution and carbon dioxide gas yields solid calcium carbonate and liquid water.



- e) Aqueous iron (III) chloride and sodium carbonate solution yields aqueous sodium chloride and a precipitate of iron (III) carbonate.



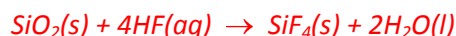
- f) Solid iron (III) oxide and carbon monoxide gas yields iron metal and carbon dioxide gas.



- g) Magnesium carbonate solution plus aqueous hydrochloric acid (HCl) yields magnesium chloride solution plus liquid water and carbon dioxide gas.



- h) Silicon dioxide solid plus aqueous hydrofluoric acid (HF) yields solid silicon tetrafluoride plus liquid water.



- i) Aqueous sodium hydroxide and carbon dioxide gas yields sodium carbonate solution and liquid water.



2. Balance the following chemical equations.

