

Worksheet 1.42 - Balancing equations

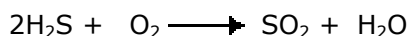
Q142-01: When the following equation is correctly balanced what is the **coefficient** for O₂?



Q142-02: When the following equation is balanced, what is the **coefficient** for oxygen?



Q142-03: Hydrogen sulphide, H₂S, reacts with oxygen to form sulfur dioxide and water as shown below:



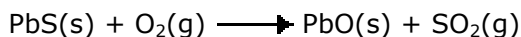
What is the whole number **coefficient** for oxygen when this equation is balanced?

Q142-04: When this equation:



is balanced correctly the **coefficient**, x, for O₂ is:

Q142-05: The reaction of lead II sulphide with oxygen at high temperature is represented by the unbalanced equation:



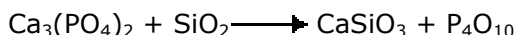
What is the sum of the coefficients in the balanced equation?

Q142-06: The oxidation of nitrogen monoxide can be represented by the word equation:



Write out the balanced equation.

Q142-07: White phosphorus is manufactured by heating phosphate ore with sand and **coke** in an electric furnace at 1500°C. The phosphorus V oxide, initially formed in an **inert** atmosphere of carbon monoxide, is then reduced by the **coke** to phosphorus. The first stage in the process may be represented by the *unbalanced* equation:



What is the **coefficient** for silicon dioxide when the equation is correctly balanced?

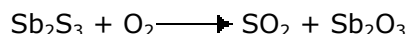
Q142-08: When the following equation is correctly balanced what is the **coefficient** for oxygen?



Q142-09: When the following equation is correctly balanced what is the **coefficient** for potassium chlorate (V)?



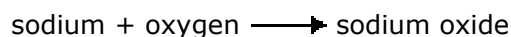
Q142-10: In the manufacture of antimony, the sulphide ore is **roasted** in oxygen to produce antimony oxide according to the unbalanced equation:



What is the **coefficient** for oxygen when the equation is correctly balanced?

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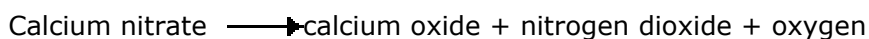
Q142-11: Write an equation to represent the following reaction:



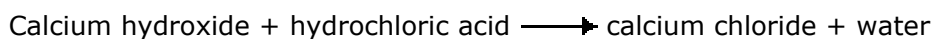
Q142-12: Write a formula equation to represent the following reaction:



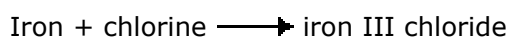
Q142-13: Write an equation to represent the following decomposition:



Q142-14: Write an equation to represent the following neutralisation:



Q142-15: Write an equation to represent the following synthesis reaction:



Q142-16: Write the ionic equation for the reaction between sulfuric acid and sodium hydroxide.

Q142-17: Write an ionic equation for the reaction between silver nitrate and sodium chloride forming a white silver chloride precipitate.

Q142-18: Write an ionic equation to represent the reaction between barium chloride and magnesium sulphate

Q142-19: Write an ionic equation to represent the reaction between iron (III) sulphate and sodium hydroxide

Q142-20: Write an ionic equation for the reaction between manganese (IV) oxide and hydrochloric acid.
