

Chemical Equations – Numerical Practice Worksheet

Q1. Balance the equation: $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$

Q2. Balance the equation: $\text{Fe} + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3$

Q3. Balance the equation: $\text{Al} + \text{O}_2 \rightarrow \text{Al}_2\text{O}_3$

Q4. If 4 g of Hydrogen reacts completely with Oxygen, how many grams of Oxygen are required?
($2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$)

Q5. Calculate the mass of water formed when 32 g of Oxygen reacts completely with Hydrogen.
($2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$)

Q6. In the reaction $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$, how many grams of CO_2 are formed when 12 g of Carbon burns completely?

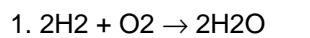
Q7. 56 g of Iron reacts with Oxygen to form Iron(III) oxide. Calculate the mass of Fe_2O_3 formed.

Q8. In the reaction $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$, how many grams of MgO are formed from 24 g of Magnesium?

Q9. If 10 g of Calcium reacts with water ($\text{Ca} + 2\text{H}_2\text{O} \rightarrow \text{Ca}(\text{OH})_2 + \text{H}_2$), calculate the mass of Hydrogen gas produced.

Q10. According to the Law of Conservation of Mass, if 15 g of Hydrogen reacts with 120 g of Oxygen, what will be the total mass of products formed?

Answer Key



4. 32 g Oxygen

5. 36 g Water

6. 44 g CO₂

7. 80 g Fe₂O₃

8. 40 g MgO

9. 0.5 g Hydrogen

10. 135 g