

Stoichiometry Worksheet

[Return to Stoichiometry menu](#)

[Go to Answers](#)

1. Given the following equation: $2 \text{C}_4\text{H}_{10} + 13 \text{O}_2 \rightarrow 8 \text{CO}_2 + 10 \text{H}_2\text{O}$, show what the following molar ratios should be.

- a. $\text{C}_4\text{H}_{10} / \text{O}_2$
- b. O_2 / CO_2
- c. $\text{O}_2 / \text{H}_2\text{O}$
- d. $\text{C}_4\text{H}_{10} / \text{CO}_2$
- e. $\text{C}_4\text{H}_{10} / \text{H}_2\text{O}$

2. Given the following equation: $2 \text{KClO}_3 \rightarrow 2 \text{KCl} + 3 \text{O}_2$

How many moles of O_2 can be produced by letting 12.00 moles of KClO_3 react?

3. Given the following equation: $2 \text{K} + \text{Cl}_2 \rightarrow 2 \text{KCl}$

How many grams of KCl is produced from 2.50 g of K and excess Cl_2 . From 1.00 g of Cl_2 and excess K ?

4. Given the following equation: $\text{Na}_2\text{O} + \text{H}_2\text{O} \rightarrow 2 \text{NaOH}$

How many grams of NaOH is produced from 1.20×10^2 grams of Na_2O ? How many grams of Na_2O are required to produce 1.60×10^2 grams of NaOH ?

5. Given the following equation: $8 \text{Fe} + \text{S}_8 \rightarrow 8 \text{FeS}$

What mass of iron is needed to react with 16.0 grams of sulfur? How many grams of FeS are produced?

6. Given the following equation: $2 \text{NaClO}_3 \rightarrow 2 \text{NaCl} + 3 \text{O}_2$

12.00 moles of NaClO_3 will produce how many grams of O_2 ? How many grams of NaCl are produced when 80.0 grams of O_2 are produced?

7. Given the following equation: $\text{Cu} + 2 \text{AgNO}_3 \rightarrow \text{Cu}(\text{NO}_3)_2 + 2 \text{Ag}$

How many moles of Cu are needed to react with 3.50 moles of AgNO_3 ? If 89.5 grams of Ag were produced, how many grams of Cu reacted?

8. Molten iron and carbon monoxide are produced in a blast furnace by the reaction of