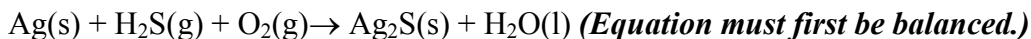


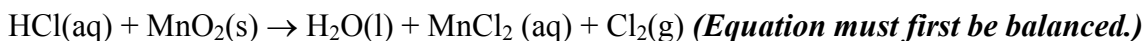
Stoichiometry Worksheet

[From: http://www.bishops.k12.nf.ca/science/chem/2202/worksheets/mass_mole/Stoichiometry%20Worksheet.htm]

1. Silver sulfide (Ag_2S) is the common tarnish on silver objects. What weight of silver sulfide can be made from 1.23 mg of hydrogen sulfide (H_2S) obtained from a rotten egg? The reaction of formation of silver sulfide is given below:



2. A somewhat antiquated method for preparing chlorine gas involves heating hydrochloric acid with pyrolusite (manganese dioxide), a common manganese ore. (Reaction given below.) How many kg of HCl react with 5.69 kg of manganese dioxide?



3. 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?

4. 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?

5. 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?

6. 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?

7. 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?

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

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?