

Mass-mass problems (no answers, yet!!)

- $4 \text{FeCr}_2\text{O}_7 + 8 \text{K}_2\text{CO}_3 + \text{O}_2 \rightarrow 2 \text{Fe}_2\text{O}_3 + 8 \text{K}_2\text{CrO}_4 + 8 \text{CO}_2$
 - How many grams of FeCr_2O_7 are required to produce 44.0 g of CO_2 ?
 - How many grams of O_2 are required to produce 100.0 g of Fe_2O_3 ?
 - If 300.0 g of FeCr_2O_7 react, how many g of O_2 will be consumed?
 - How many g of Fe_2O_3 will be produced from 300.0 g of FeCr_2O_7 ?
 - How many grams of K_2CrO_4 are formed per gram of K_2CO_3 used?
- Given the reaction $\text{S} + \text{O}_2 \rightarrow \text{SO}_2$
 - How many grams of sulfur must be burned to give 100.0 g of SO_2
 - how many grams of oxygen will be required for the reaction in part (a)?
- $6 \text{NaOH} + 2 \text{Al} \rightarrow 2 \text{Na}_3\text{AlO}_3 + 3 \text{H}_2$
 - How much aluminum is required to produce 17.5 g of hydrogen?
 - How much Na_3AlO_3 can be formed from 165.0 g of sodium hydroxide?
 - How many moles of NaOH are required to produce 3 g of hydrogen?
 - How many mol of hydrogen can be prepared from 1 gram atom of aluminum?
- $\text{BaO} + \text{H}_2\text{SO}_4 \rightarrow \text{BaSO}_4 + \text{H}_2\text{O}$
 - How much BaSO_4 can be formed from 196.0 g of H_2SO_4 ?
 - If 81.00 g of water is formed during this reaction, how much BaO was used?
- $\text{NaCl} + \text{AgNO}_3 \rightarrow \text{AgCl} + \text{NaNO}_3$
 - 78.00 g of NaCl should produce how many grams of AgCl ?
 - How much AgCl can be produced from 107.0 g of AgNO_3 ?
- $\text{B}_2\text{O}_3 + 3 \text{Mg} \rightarrow 3 \text{MgO} + 2\text{B}$
 - How much boron can be obtained from 10.00 tons of B_2O_3 ?
 - how much magnesium is required to produce 400.0 lbs of boron?
- SnO_2 is reduced by carbon according to the this reaction: $\text{SnO}_2 + \text{C} \rightarrow \text{Sn} + \text{CO}_2$
 - How many pounds of CO_2 are formed when 1.00 ton of tin is produced?
 - How much SnO_2 is required to produce 6.00 tons of tin?
 - How much tin is produced per ton of carbon used?
- $2 \text{KMnO}_4 + \text{H}_2\text{SO}_4 \rightarrow \text{K}_2\text{SO}_4 + \text{Mn}_2\text{O}_7 + \text{H}_2\text{O}$
 - How many moles of Mn_2O_7 can be formed from 196.0 g of KMnO_4 ?
 - How many grams of Mn_2O_7 can be formed from 390.0 g of KMnO_4 ?
 - How much H_2SO_4 is needed to produce 27.00 g of water?
- Determine moles of barium bromate that can be prepared from 7.000 moles each of HBrO_3 and Ba(OH)_2 given this equation: $\text{HBrO}_3 + \text{Ba(OH)}_2 \rightarrow \text{Ba(BrO}_3)_2 + \text{H}_2\text{O}$
- Determine moles of Na_2S that can be prepared by the reaction of 0.2240 moles of sodium with 0.1320 moles of sulfur. Which reactant is the limiting factor? $16 \text{Na} + \text{S}_8 \rightarrow 8 \text{Na}_2\text{S}$