The City School
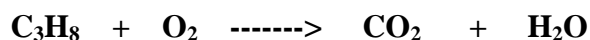
Boys Campus North Nazimabad

Chemistry assignment

Class 11

1. Given the following reaction: (Balance the equation first!)

$$C_3H_8 \ + \ O_2 \ \text{-------}> \ CO_2 \ + \ H_2O$$

a) If you start with 14.8 g of C_3H_8 and 3.44 g of O_2, determine the limiting reagent

b) determine the number of moles of carbon dioxide produced

c) determine the number of grams of H_2O produced

d) determine the number of grams of excess reagent left

2. Given the following equation:

$$Al_2(SO_3)_3 \ + \ 6 \ NaOH \ \text{------}> 3 \ Na_2SO_3 \ + \ 2 \ Al(OH)_3$$
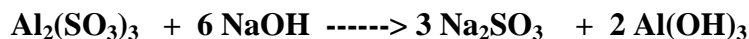
a) If 10.0 g of $Al_2(SO_3)_3$ is reacted with 10.0 g of NaOH, determine the limiting reagent

b) Determine the number of moles of $Al(OH)_3$ produced

c) Determine the number of grams of Na_2SO_3 produced

d) Determine the number of grams of excess reagent left over in the reaction

3. Given the following equation:

$$Al_2O_3 \ + \ Fe \ \text{------}> Fe_3O_4 \ + \ Al$$

a) If 25.4 g of Al_2O_3 is reacted with 10.2 g of Fe, determine the limiting reagent

b) Determine the number of moles of Al produced

c) Determine the number of grams of Fe_3O_4 produced

d) Determine the number of grams of excess reagent left over in the reaction