Pre-AP Chemistry
Unit #9—Stoichiometry
Homework Part II

**Mass to Mass**

__ $C_6H_{12}O_6$ (aq) ⇨ 2 $C_2H_5OH$ (aq) + 2 $CO_2$ (g)

The decomposition of glucose, $C_6H_{12}O_6$, produces ethyl alcohol, $C_2H_5OH$, and carbon dioxide, $CO_2$.

1. Calculate the molar mass for all compounds in the chemical reaction.

2. How many grams of carbon dioxide are produced when 7.50 grams of ethyl alcohol is produced for the reaction?

__ $Fe_2O_3$ (s) + 3 C (s) ⇨ 2 Fe (s) + 3 CO (g)

Molten iron and carbon monoxide are produced in a blast furnace by the reaction of iron (III) oxide and coke (pure carbon).

1. Calculate the molar mass for all compounds in the chemical reaction.

2. If 16,800 kgrams of pure carbon is used, how many grams of gaseous carbon monoxide can be produced?