Name: _____ Date: _____

BCI SCIENCE
SCH 4CI

Worksheet:
Stoichiometry #1

1. Calculate the mass of acetic acid, $CH_3COOH_{(l)}$, that is produced by the reaction of 6000 g of carbon monoxide, $CO_{(g)}$, with sufficient methanol, $CH_3OH_{(l)}$.

   ___$CH_3OH_{(l)}$ + ___$CO_{(g)}$ → ___$CH_3COOH_{(l)}$ **130000g**

2. Calculate the mass of silver nitrate, $AgNO_{3(aq)}$, that must react with solid copper to provide 475 kg of copper nitrate, $Cu(NO_3)_{2(aq)}$.

   ___$Cu_{(s)}$ + ___$AgNO_{3(aq)}$ → ___$Ag_{(s)}$ + ___$Cu(NO_3)_{2(aq)}$ **860kg**

3. What mass of oxygen, $O_{2(g)}$, is produced if 22.7 mol of carbon dioxide is consumed in a controlled photosynthesis reaction?

   ___$CO_{2(g)}$ + ___$H_2O_{(l)}$ → ___$C_6H_{12}O_{6(s)}$ + ___$O_{2(g)}$ **726g**

4. What amount of moles of sodium phosphate, $Na_3PO_{4(aq)}$, is produced if 14.7 g of sodium hydroxide reacts with phosphoric acid, $H_3PO_{4(aq)}$?

   ___$NaOH_{(aq)}$ + ___$H_3PO_{4(aq)}$ → ___$Na_3PO_{4(aq)}$ + ___$H_2O_{(l)}$ **0.123mol**