## Stoichiometry Worksheet

- 1.  $Na_2SIO_3(s) + 8 HF(aq) \rightarrow H_2SiF_6(aq) + 2 NaF(aq) + 3 H_2O(l)$
- a. How many moles of HF are needed to react with 0.300 mol of  $Na_2SiO_3$ ?
- b. How many grams of NaF form when 0.500 mol of HF reacts with excess Na<sub>2</sub>SiO<sub>3</sub>?
- c. How many grams of  $Na_2SiO_3$  can react with 0.800 g of HF?
- 2.  $C_6H_{12}O_6$  (aq)  $\rightarrow$  2  $C_2H_5OH$  (aq) + 2  $CO_2$  (g)
- a. How many moles of  $CO_2$  are produced when  $0.400 \ mol$  of  $C_6H_{12}O_6$  reacts in this fashion?
- b. How many grams of  $C_6H_{12}O_6$  are needed to form 7.50 g of  $C_2H_5OH?$
- c. How many grams of  $CO_2$  form when 7.50 g of  $C_2H_5OH$  are produced?
- 3.  $Fe_2O_3(s) + CO(g) \rightarrow Fe(s) + CO_2(g)$  (unbalanced!)
- a. Calculate the number of grams of CO that can react with  $0.150 \ kg$  of  $Fe_2O_3$