## Stoichiometry Homework

1) How many grams of lithium sulfate will be formed when 25 grams of sulfuric acid react with an excess of lithium hydroxide in the following reaction?
$\qquad$ $\mathrm{H}_{2} \mathrm{SO}_{4}+$ $\qquad$ $\mathrm{LiOH} \rightarrow$ $\qquad$ $\mathrm{Li}_{2} \mathrm{SO}_{4}+$ $\qquad$ $\mathrm{H}_{2} \mathrm{O}$
2) How many grams of sodium acetate are required to react completely with 30 grams of iron (III) nitrate in the following reaction?
$\qquad$ $\mathrm{NaC}_{2} \mathrm{H}_{3} \mathrm{O}_{2}+$ $\qquad$ $\mathrm{Fe}\left(\mathrm{NO}_{3}\right)_{3} \rightarrow$ $\qquad$ $\mathrm{NaNO}_{3}+$ $\qquad$ $\mathrm{Fe}\left(\mathrm{C}_{2} \mathrm{H}_{3} \mathrm{O}_{2}\right)_{3}$
3) How many grams of fluorine gas will it take to convert 100 grams of $\mathrm{C}_{2} \mathrm{H}_{4}$ to $\mathrm{C}_{2} \mathrm{H}_{4} \mathrm{~F}_{2}$ using the following reaction?

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\ldots \mathrm{C}_{2} \mathrm{H}_{4}+\ldots \mathrm{F}_{2} \rightarrow \ldots \mathrm{C}_{2} \mathrm{H}_{4} \mathrm{~F}_{2}
$$

4) Using the following reaction, how many grams of sodium bromide can be formed from 45 grams of iron (III) bromide and an excess of sodium?
$\qquad$ $\mathrm{Na}+$ $\qquad$ $\mathrm{FeBr}_{3} \rightarrow$ $\qquad$ $\mathrm{NaBr}+$ $\qquad$ Fe
