## Stoichiometry Part 3: Limiting Reactant and Percent Yield

Consider the following chemical equation to answer the questions.

$$
\mathrm{CaCN}_{2}(\mathrm{~s})+\mathrm{H}_{2} \mathrm{O}(\mathrm{l}) \rightarrow \mathrm{CaCO}_{3}(\mathrm{~s})+\mathrm{NH}_{3}(\mathrm{~g})
$$

a) Check to see if the equation is balanced. If not, balance it.
b) Which is the limiting reagent if $23.25 \mathrm{~g}^{\mathrm{g}}$ of $\mathrm{CaCN}_{2}$ is reacted with 30.00 g of water? (show work)
c) How many grams of $\mathrm{CaCO}_{3}$ are produced?
d) What is the percent yield if 27.34 g of CaCO 3 was recovered?
e) How much water was left unreacted?

