## Stoichiometry Part 1

Use the following chemical equation to answer the questions:

$$
\mathrm{C}_{2} \mathrm{H}_{2}(\mathrm{~g})+\mathrm{O}_{2}(\mathrm{~g}) \rightarrow \mathrm{CO}_{2}(\mathrm{~g})+\mathrm{H}_{2} \mathrm{O}(\mathrm{~g})
$$

a) Write a $\qquad$ chemical reaction.
b) Write a mole ratio for $\mathrm{C}_{2} \mathrm{H}_{2}$ and $\mathrm{O}_{2}$
c) Write a mole ratio for $\mathrm{C}_{2} \mathrm{H}_{2}$ and $\mathrm{CO}_{2}$
d) How many moles of oxygen will react with 3.25 moles of $\mathrm{C}_{2} \mathrm{H}_{2}$ ?
e) How many moles of $\mathrm{CO}_{2}$ will form if 0.62 moles of $\mathrm{C}_{2} \mathrm{H}_{2}$ is reacted?
f) How many grams of $\mathrm{C}_{2} \mathrm{H}_{2}$ are required to react with 8.5 moles of $\mathrm{O}_{2}$ ?

