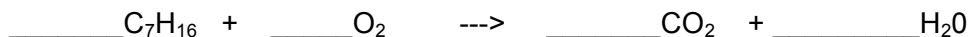


1. (2 points) Aqueous solutions of calcium chloride and sodium phosphate are mixed and a precipitate forms. The products of the reaction are aqueous sodium chloride and solid calcium phosphate. Write the balanced reaction.

2. (2 points) Balance the following equation for the combustion of heptane:



3. (2 points) Pentane (C_5H_{12}) is burned in the presence of oxygen to produce carbon dioxide and water. How many grams of carbon dioxide are produced when one 200 grams of pentane is burned?

4. (4 points) If 12.0 grams of nitrogen gas is reacted with 33 grams of hydrogen gas, how much ammonia can be made?

- Write the balanced reaction
- Determine the limiting reagent
- Use the moles of the limiting reagent to determine the moles of product
- Use the moles of product to determine the grams of product.

5. (10 points) What is the molar mass of each of the following compounds?

- Ammonium sulfate
- Lead (II) carbonate
- Magnesium hydroxide
- Lithium phosphite
- Calcium acetate