

# CHEMISTRY HOMEWORK SHEET

NAME \_\_\_\_\_

17	37
Cl	17 Cl
35.453	17 protons 17 electrons 20 neutrons



Write a balanced equation for each reaction. Solve the problems, showing all work and units.

1. How many grams of water would be produced by burning 5050 grams of pentane ( $C_5H_{12}$ )? [Mass-Mass]

2. How many grams of oxygen must react with carbon monoxide to produce 400.0 Liters of carbon dioxide? [Volume-Mass]

3. Determine the mass of iron produced when  $4.25 \times 10^{23}$  molecules of iron (III) oxide react with carbon to produce iron and carbon monoxide. [Molecules-Mass]

4. Sulfuric acid reacts with aluminum to produce hydrogen gas and aluminum sulfate. If 40.0 grams of sulfuric acid react with 8.75 grams of Al, determine which compound is the limiting reagent. [Limiting Reagent, Mass-Mass]