(3) I. Write the correct formula for each of the following:

- phosphorus pentafluoride
  \[ \text{PF}_5 \]
- sodium nitrate
  \[ \text{NaNO}_3 \]
- mercury (II) chloride
  \[ \text{HgCl}_2 \]

(2) II. Propane, \( \text{C}_3\text{H}_8 \), is a fuel used for heating and for gas barbecue grills. Write a balanced equation for the complete combustion of propane.

\[
\text{C}_3\text{H}_8 + 5\text{O}_2 \rightarrow 3\text{CO}_2 + 4\text{H}_2\text{O}
\]

(5) III. What is the mass (in lbs) of 50 gallons of gasoline? Show all work for credit. (assume the density of gasoline = 0.75 g/mL; 1 kg = 2.2 lb)

\[
(50 \text{ gal})(\frac{4 \text{ gal}}{1 \text{ L}})(\frac{1 \text{ L}}{1.06 \text{ gal}})(\frac{1000 \text{ mL}}{1 \text{ L}})(\frac{0.75 \text{ g}}{1 \text{ mL}})(\frac{1 \text{ kg}}{1000 \text{ g}})(\frac{2.2 \text{ lb}}{1 \text{ kg}}) = \frac{311 \text{ lb}}{} \text{ or } [300 \text{ lbs}] \text{ to one significant figure}
\]