Review Exercise 2 - Dimensional Analysis

1. Perform the following conversions using dimensional analysis:

a) 250 g to kg

b) 0.800 L to mL

c) 500 mL to L

d) 720 mmol to mol

e) 0.060 kg to g

f) 900 cm^2 to m^2

g) 20.0 g of NaOH to moles of NaOH

h) 2.5 mol of sulfuric acid to grams

i) 3.0 g of ice to moles of ice

j) Given $P_{4(s)} + 5O_{2(g)} \text{ -----> } 2P_2O_{5(s)}$

How many moles of phosphorus will react with 11.6 mol of oxygen gas?

How many moles of $O_{2(g)}$ will produce 6.12 mol of $P_2O_{5(s)}$?