1) Lithium hydroxide is often used to remove CO2 in the air with the following reaction:

CO2 + 2 LiOH 🡺 Li2CO3 + H2O

How many mol of LiOH are required to react with 20.0 mol CO2?

* Use the following reaction for problems #2 – 4 (make sure to balance it!):

NH3 + O2 🡺 N2 + H2O

2) How many mol of N2 are produced from reacting 4.00 mol NH3?

3) How many mol of H2O are produced when 4.00 mol of N2 are also produced?

4) How many mol of NH3 are required to react with 4.50 mol of O2?

5) If 4.5 mol of ethane (C2H6) is combusted in the following reaction:

C2H6 + O2 🡺 CO2 + H2O

 a) how many mol of O2 are required?

 b) how many mol of CO2 is produced?

 c) how many mol of H2O is formed?

6) Sodium chloride is formed by reacting sodium with chlorine gas (Cl2). If 30.0 mol of sodium chloride is needed,

 a) how many mol of Na must react?

 b) how many mol of Cl2 must react?