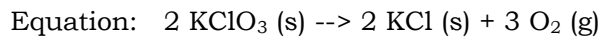


Stoichiometry

Name: _____

Directions: Show all steps in your solution. Remember to include units in your work.

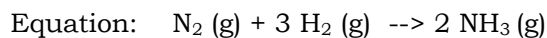
1) Oxygen gas can be produced by the decomposition of potassium chlorate into potassium chloride and oxygen.



a) How many grams of oxygen can be obtained by the decomposition of 15 grams of KClO_3 ?

b) How many moles of potassium chloride are produced in the same reaction?

2) Ammonia gas (NH_3) can be synthesized by the reaction of nitrogen gas with hydrogen gas.



a) How many grams of nitrogen **and** hydrogen must be used to produce 240 grams of ammonia?

b) How many grams of ammonia would be produced by the reaction of 5.00 g of nitrogen with excess hydrogen (more hydrogen than is needed)?

Answers: 1a) 5.88 g oxygen gas

2a) 42 g hydrogen gas, 198 g nitrogen gas