

Name _____ BK _____

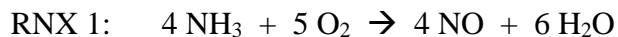
Percent Yield

Ex1a. If 36.0 g of nitrogen react with excess hydrogen to produce 32.6 g of NH₃. Determine the % yield of the process? $\text{N}_2 + 3 \text{H}_2 \rightarrow 2 \text{NH}_3$

Ex1B. You are asked to produce 15.0 g of NH₃ using the process from the previous problem with a % yield of _____. How many grams of N₂ are needed?

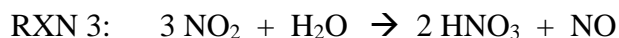
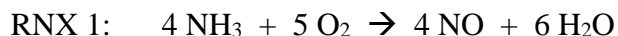
The 3 Reaction Problem

NOTES:



- If 75.0 grams of NH_3 is reacted with excess oxygen. What mass of HNO_3 will be produced?
- What is the actual yield if RXN 1 is 92.0 %, RXN 2 is 85.0 %, and RXN 3 is 97.0 %?
(SHORT CUT)
- What is the overall percent yield of the process?

Practice: #1



25.0 grams of oxygen were reacted with excess NH_3 in RXN 1 and 17.5 grams of HNO_3 were actually produced at the end of the process.

- What is the % yield of RXN 2 if RXN 1 is 92.0 % and RXN 3 is 93.0 %?
(hint: calculate the Theoretical yield of HNO_3 first)
- How many grams NO_2 is actually produced at the end of RXN 2?
- What is the overall percent yield of the process?