LR Example

For the following reaction at STP: 36.429 g C3H6 and 38.527 g NO

C3H6(s)+ NO(g) 🡪 C3H3N(s) + H2O(l) + N2(g)

1. Balance the reaction
2. What is the limiting reactant?
3. What is the excess reactant?
4. How much NO is used?
5. How much NO is left over?
6. How much C3H6 is used?
7. How much C3H6 is left over?
8. What is the theoretical yield of H2O?
9. If the actual yield is 19.661 g H2O, what is the percent yield?
10. What volume in L of N2(g) is produced?
11. How many moles of C3H3N is produced?