Exercise 9.3a

Limiting Reactants

Name: _____

Date:_____ Per:___

DIRECTIONS: Solve the following problems in the space provided.

1. Given the equation $NH_3 + HCl \rightarrow NH_4Cl$, find the number of particles of NH_4Cl formed if 30.0 g of NH_3 reacts with 10.0 g of HCl.

2. Given the equation $WO_3 + H_2 \rightarrow W + H_2O$, find the mass of W formed if 2.40×10^{22} particles of WO_3 reacts with 1.30 g of H_2.

3. Given the equation $Zn + CrCl_3 \rightarrow CrCl_2 + ZnCl_2$, find the mass of $CrCl_2$ formed if 3.20×10^{19} particles of $CrCl_3$ reacts with 10.0 g Zn.

4. Given the equation $RbCl + O_2 \rightarrow RbClO_4$, find the mass of $RbClO_4$ formed if 2.70 g of O_2 reacts with 135g RbCl.

Revised: 2020-01-14

Answers: 1) 1.65×10^{23} p. NH_4Cl 2) 7.33 g W 3) 0.00653g $CrCl_2$ 4) 7.80 g $RbClO_4$