Name _____   Date _____

Stoichiometry Worksheet

1. Calculate the number of moles of KOH needed to react with 450.0 g of H_3PO_4 according to the following equation:

$$H_3PO_4 + 3KOH \rightarrow K_3PO_4 + 3H_2O$$

answer: 13.77 mol KOH

2. Calculate the mass of H_2 produced when 80.0 g of Al reacts with excess HCl according to the following equation:

$$2Al + 6HCl \rightarrow 2AlCl_3 + 3H_2$$

answer: 8.97 g H_2

3. Identify the limiting reactant and determine the mass of CO_2 that can be produced from the reaction of 30.0 g of C_2H_2 with 85.0 g of O_2 according to the following equation:

$$2C_2H_2 + 5O_2 \rightarrow 4CO_2 + 2H_2O$$

answer: 93.8 g CO_2 (O_2 is the limiting reactant)

4. How many grams of NO_2 are produced when 180 g of NO reacts with 150 g of O_2 according to the following equation:

$$2NO + O_2 \rightarrow 2NO_2$$
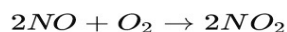
answer: 275.8 g NO_2 (NO is the limiting reactant)