Stoichiometry: Mole-Mole Problems

 $N_2 \ + 3H_2 \ \rightarrow \ 2NH_3$

How many moles of hydrogen are needed to completely react with 2.00 moles of nitrogen?

 $2KClO_3 \rightarrow 2KCl + 3O_2$

How many moles of oxygen are produced by the decomposition of 6.0 moles of potassium chlorate?

 $Zn + 2HCl \rightarrow ZnCl_2 + H_2$ How many moles of hydrogen are produced from the reaction of 3.000 moles of zinc with an excess of hydrochloric acid?

 $C_3H_8 + 5O_2 \rightarrow 3CO_2 + 4H_2O$

How many moles of oxygen are necessary to react completely with 4.0 moles of propane?

 $K_3PO_4 + Al(NO_3)_3 \rightarrow 3KNO_3 + AlPO_4$

How many moles of potassium nitrate are produced when 2.0 moles of potassium phosphate react with 2.0 moles of aluminum nitrate?