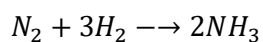


## C11 - 4.1 - Stoichiometry Moles $\leftrightarrow$ Moles HMK



*How many moles of  $N_2$  are required to react with 12 moles of  $H_2$ ?*

*How many moles of  $N_2$  are required to produce 6 moles of  $NH_3$ ?*

*How many moles of  $NH_3$  are produced if 9 moles of  $N_2$  are reacted?*

*How many moles of  $NH_3$  are produced if 9 moles of  $H_2$  are reacted?*

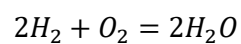
*How many molecules of  $N_2$  are required to react with 12 molecules of  $H_2$ ?*

*How many molecules of  $N_2$  are required to produce 6 molecules of  $NH_3$ ?*

*How many molecules of  $NH_3$  are produced if 9 molecules of  $N_2$  are reacted?*

*How many molecules of  $NH_3$  are produced if 9 molecules of  $H_2$  are reacted?*

## C11 - 4.1 - Stoichiometry Mass <-> Moles HMK



*What is the mass  $H_2O$  produced if 4 moles of  $O_2$  is reacted?*

*What is the mass  $H_2O$  produced if 4 moles of  $H_2$  is reacted?*

*What mass of  $H_2$  is required to produce 18 g of  $H_2O$ ?*

*What mass of  $O_2$  is required to produce 12 g of  $H_2O$ ?*

## C11 - 4.2 - Excess Mass HMK

*5 g Hydrogen gas reacts with 80 g Oxygen gas to produce Water.*

*5 g Hydrogen gas reacts with 1 g Oxygen gas to produce Water.*