# Stoichiometry Calculation Practice Worksheet
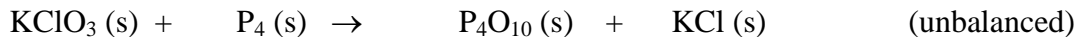
1. How many grams of $P_4O_{10}$ can be produced from the reaction of 52.9 g of $KClO_3$ with excess phosphorous as shown below:

   $KClO_3$ (s)  +      $P_4$ (s)  →        $P_4O_{10}$ (s)   +     KCl (s)                (unbalanced)

2. How many grams of $N_2$ can be formed from the reaction of 18.1 g of $NH_3$ and 90.4 g of CuO, as shown below:

   $2 NH_3$ (g)  +  3 CuO (s)  →  $N_2$ (g)  +  3 Cu (s)  + $3 H_2O$ (g)

3. When 50.0 g of $MgCO_3$ react completely with $H_3PO_4$, as shown below, 15.8 g of $CO_2$ is produced. What is the percent yield for this reaction?

   $2 H_3PO_4$  +   $3 MgCO_3$  →    $Mg_3(PO_4)_2$  + 3 $CO_2$  +  3 $H_2O$

4. What mass of $F_2$ is needed to produce 120.0 g of $PF_3$, as shown, if the reaction has a 78.1% yield?

   $P_4$ (s)  +  6 $F_2$ (g)  →    4 $PF_3$ (g)