

Balance the Equation:

1. \_\_\_\_\_  $\text{HNO}_3$  + \_\_\_\_\_  $\text{LiOH}$   $\rightarrow$  \_\_\_\_\_  $\text{H}_2\text{O}$  + \_\_\_\_\_  $\text{LiNO}_3$
2. \_\_\_\_\_  $\text{Ga}_4\text{C}_3$  + \_\_\_\_\_  $\text{I}_2$   $\rightarrow$  \_\_\_\_\_  $\text{GaI}_3$  + \_\_\_\_\_  $\text{Cl}_4$
3. \_\_\_\_\_  $\text{TiO}_2$  + \_\_\_\_\_  $\text{C}$  + \_\_\_\_\_  $\text{Cl}_2$   $\rightarrow$  \_\_\_\_\_  $\text{TiCl}_4$  + \_\_\_\_\_  $\text{CO}$
4. \_\_\_\_\_  $\text{KClO}_3$   $\rightarrow$  \_\_\_\_\_  $\text{KCl}$  + \_\_\_\_\_  $\text{O}_2$
5. \_\_\_\_\_  $\text{K}_2\text{O}_2$  + \_\_\_\_\_  $\text{H}_2\text{O}$   $\rightarrow$  \_\_\_\_\_  $\text{KOH}$  + \_\_\_\_\_  $\text{O}_2$

Balance each equation &amp; solve the problem (Show work)

6. \_\_\_\_\_  $\text{SbS}_2$  + \_\_\_\_\_  $\text{O}_2$   $\rightarrow$  \_\_\_\_\_  $\text{Sb}_2\text{O}_4$  + \_\_\_\_\_  $\text{SO}_2$   
When 5.00 grams of  $\text{SbS}_2$  reacts, what mass of  $\text{Sb}_2\text{O}_4$  can form?

7. \_\_\_\_\_  $\text{Cr}$  + \_\_\_\_\_  $\text{H}_2\text{SO}_4$   $\rightarrow$  \_\_\_\_\_  $\text{CrSO}_4$  + \_\_\_\_\_  $\text{H}_2$   
If 0.52 g of  $\text{Cr}$  dissolve in  $\text{H}_2\text{SO}_4$ , what volume of  $\text{H}_2$  gas forms at STP?

8. \_\_\_\_\_  $\text{C}_3\text{H}_8$  + \_\_\_\_\_  $\text{O}_2$   $\rightarrow$  \_\_\_\_\_  $\text{CO}_2$  + \_\_\_\_\_  $\text{H}_2\text{O}$   
To burn 20.0 L of  $\text{C}_3\text{H}_8$  at STP, \_\_\_\_\_ L of  $\text{O}_2$  gas are needed.

9. \_\_\_\_\_  $\text{Na}_2\text{CrO}_4$  + \_\_\_\_\_  $\text{Pb}(\text{NO}_3)_2$   $\rightarrow$  \_\_\_\_\_  $\text{PbCrO}_4$  + \_\_\_\_\_  $\text{NaNO}_3$   
If 4.00 grams of  $\text{Na}_2\text{CrO}_4$  are to react completely, what mass of  $\text{Pb}(\text{NO}_3)_2$  must be added?

10. \_\_\_\_\_  $\text{C}_4\text{H}_{10}$  + \_\_\_\_\_  $\text{O}_2$   $\rightarrow$  \_\_\_\_\_  $\text{CO}_2$  + \_\_\_\_\_  $\text{H}_2\text{O}$   
To burn 580 g of  $\text{C}_4\text{H}_{10}$ , how many liters of  $\text{O}_2$  gas are needed at STP?