



## BALANCE THE GIVEN CHEMICAL EQUATIONS

### Worksheet - 98

1.  $\text{LiAlH}_4 + \text{AlCl}_3 = 4 \text{AlH}_3 + \text{LiCl}$
2.  $\text{Co}(\text{NO}_3)_2 + \text{NaCl} = \text{NaNO}_3 + \text{CoCl}_2$
3.  $4 \text{C}_2\text{H}_5\text{NH}_2(\text{g}) + \text{O}_2(\text{g}) = 8 \text{CO}_2(\text{g}) + \text{H}_2\text{O}(\text{g}) + 2 \text{N}_2(\text{g})$
4.  $\text{Na}_2\text{S}_2\text{O}_3 + \text{I}_2 = \text{NaI} + \text{Na}_2\text{S}_4\text{O}_6$
5.  $\text{SrO}_2 = \text{SrO} + \text{O}_2$
6.  $\text{CuCl} + \text{H}_2\text{S} = \text{Cu}_2\text{S} + \text{HCl}$
7.  $2 \text{Sb} + \text{Cl}_2 = \text{SbCl}_3$
8.  $\text{Cl}_2 + 3 \text{H}_2\text{O} + 6 \text{AgNO}_3 = \text{AgCl} + 6 \text{HNO}_3 + \text{AgClO}_3$
9.  $\text{B}_2\text{S}_3 + \text{H}_2\text{O} = \text{H}_3\text{BO}_3 + 3 \text{H}_2\text{S}$
10.  $\text{NBr}_3 + 3 \text{NaOH} = \text{N}_2 + \text{NaBr} + 3 \text{HOBr}$
11.  $\text{Cu} + \text{H}_2\text{SO}_4 = \text{CuSO}_4 + \text{SO}_2 + \text{H}_2\text{O}$
12.  $3 \text{PCl}_3 + \text{HNO}_3 + 8 \text{H}_2\text{O} = \text{NO} + 9 \text{HCl} + 3 \text{H}_3\text{PO}_4$
13.  $\text{Cr}_2\text{O}_3 + \text{Al} = \text{Cr} + \text{Al}_2\text{O}_3$
14.  $\text{TiCl}_4 + \text{H}_2\text{O} = \text{TiO}_2 + \text{HCl}$
15.  $\text{PH}_3 + 2 \text{I}_2 + \text{H}_2\text{O} = \text{H}_3\text{PO}_2 + \text{HI}$
16.  $\text{ZnS} + 3 \text{O}_2 = \text{ZnO} + 2 \text{SO}_2$
17.  $\text{NH}_4\text{ClO}_4 = \text{N}_2 + \text{Cl}_2 + \text{O}_2 + 4 \text{H}_2\text{O}$
18.  $\text{Li}(\text{s}) + \text{O}_2(\text{g}) = \text{Li}_2\text{O}(\text{s})$
19.  $2 \text{H}_2\text{S} + \text{O}_2 = 2 \text{SO}_2 + \text{H}_2\text{O}$
20.  $\text{Cu}(\text{NO}_3)_2 + \text{KOH} = \text{Cu}(\text{OH})_2 + \text{KNO}_3$



# ANSWERS

1.  $3 \text{LiAlH}_4 + \text{AlCl}_3 = 4 \text{AlH}_3 + 3 \text{LiCl}$
2.  $\text{Co}(\text{NO}_3)_2 + 2 \text{NaCl} = 2 \text{NaNO}_3 + \text{CoCl}_2$
3.  $4 \text{C}_2\text{H}_5\text{NH}_2(\text{g}) + 15 \text{O}_2(\text{g}) = 8 \text{CO}_2(\text{g}) + 14 \text{H}_2\text{O}(\text{g}) + 2 \text{N}_2(\text{g})$
4.  $2 \text{Na}_2\text{S}_2\text{O}_3 + \text{I}_2 = 2 \text{NaI} + \text{Na}_2\text{S}_4\text{O}_6$
5.  $2 \text{SrO}_2 = 2 \text{SrO} + \text{O}_2$
6.  $2 \text{CuCl} + \text{H}_2\text{S} = \text{Cu}_2\text{S} + 2 \text{HCl}$
7.  $2 \text{Sb} + 3 \text{Cl}_2 = 2 \text{SbCl}_3$
8.  $3 \text{Cl}_2 + 3 \text{H}_2\text{O} + 6 \text{AgNO}_3 = 5 \text{AgCl} + 6 \text{HNO}_3 + \text{AgClO}_3$
9.  $\text{B}_2\text{S}_3 + 6 \text{H}_2\text{O} = 2 \text{H}_3\text{BO}_3 + 3 \text{H}_2\text{S}$
10.  $2 \text{NBr}_3 + 3 \text{NaOH} = \text{N}_2 + 3 \text{NaBr} + 3 \text{HOBr}$
11.  $\text{Cu} + 2 \text{H}_2\text{SO}_4 = \text{CuSO}_4 + \text{SO}_2 + 2 \text{H}_2\text{O}$
12.  $3 \text{PCl}_3 + 2 \text{HNO}_3 + 8 \text{H}_2\text{O} = 2 \text{NO} + 9 \text{HCl} + 3 \text{H}_3\text{PO}_4$
13.  $\text{Cr}_2\text{O}_3 + 2 \text{Al} = 2 \text{Cr} + \text{Al}_2\text{O}_3$
14.  $\text{TiCl}_4 + 2 \text{H}_2\text{O} = \text{TiO}_2 + 4 \text{HCl}$
15.  $\text{PH}_3 + 2 \text{I}_2 + 2 \text{H}_2\text{O} = \text{H}_3\text{PO}_2 + 4 \text{HI}$
16.  $2 \text{ZnS} + 3 \text{O}_2 = 2 \text{ZnO} + 2 \text{SO}_2$
17.  $2 \text{NH}_4\text{ClO}_4 = \text{N}_2 + \text{Cl}_2 + 2 \text{O}_2 + 4 \text{H}_2\text{O}$
18.  $4 \text{Li}(\text{s}) + \text{O}_2(\text{g}) = 2 \text{Li}_2\text{O}(\text{s})$
19.  $2 \text{H}_2\text{S} + 3 \text{O}_2 = 2 \text{SO}_2 + 2 \text{H}_2\text{O}$
20.  $\text{Cu}(\text{NO}_3)_2 + 2 \text{KOH} = \text{Cu}(\text{OH})_2 + 2 \text{KNO}_3$



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