



## BALANCE THE GIVEN CHEMICAL EQUATIONS

### Worksheet - 17

1.  $\text{NH}_3 + 5 \text{O}_2 = \text{NO} + 6 \text{H}_2\text{O}$
2.  $2 \text{C}_6\text{H}_6 + \text{O}_2 = \text{CO}_2 + 6 \text{H}_2\text{O}$
3.  $2 \text{H}_3\text{PO}_4 + \text{CaO} = \text{Ca}_3(\text{PO}_4)_2 + \text{H}_2\text{O}$
4.  $3 \text{MgSO}_4 + \text{FeCl}_3 = \text{Mg}_3(\text{Cl}_3)_2 + \text{Fe}_2(\text{SO}_4)_3$
5.  $\text{BaCl}_2 + \text{NaOH} = \text{Ba}(\text{OH})_2 + \text{NaCl}$
6.  $10 \text{CH}_3\text{OH} + \text{O}_2 = \text{CO}_2 + 2 \text{H}_2\text{O}$
7.  $2 \text{B} + \text{NaOH} = \text{NaBO}_2 + 3 \text{H}_2 + 2 \text{Na}_2\text{O}$
8.  $7 \text{CH}_3\text{OH} + \text{Cr}_2\text{O}_7 = 7 \text{HCOOH} + \text{Cr} + 7 \text{H}_2\text{O}$
9.  $4 (\text{NH}_4)_3\text{PO}_4 + \text{Pb}(\text{NO}_3)_4 = \text{Pb}_3(\text{PO}_4)_4 + \text{NH}_4\text{NO}_3$
10.  $\text{C}_6\text{H}_{12}\text{O}_6 + 6 \text{O}_2 = \text{CO}_2 + 6 \text{H}_2\text{O}$
11.  $\text{CaCO}_3 + 2 \text{H}_3\text{PO}_4 = \text{Ca}_3(\text{PO}_4)_2 + \text{H}_2\text{CO}_3$
12.  $\text{C}_2 + 2 \text{O}_2(\text{g}) = \text{CO}_2(\text{g})$
13.  $\text{NiCl}_2 + \text{O}_2 = \text{NiO} + \text{Cl}_2\text{O}_5$
14.  $\text{Al} + \text{Cl} = \text{AlCl}_3$
15.  $2 \text{HCl} + \text{Na}_2\text{CO}_3 = \text{NaCl} + \text{H}_2\text{O} + \text{CO}_2$
16.  $4 \text{Fe} + \text{O}_2 = 2 \text{Fe}_2\text{O}_3$
17.  $\text{CaCO}_3 + \text{CH}_3\text{COOH} = (\text{CH}_3\text{COO})_2\text{Ca} + \text{CO}_2 + \text{H}_2\text{O}$
18.  $2 \text{KI} + \text{Pb}(\text{NO}_3)_2 = \text{KNO}_3 + \text{PbI}_2$
19.  $\text{AgBr} + \text{Na}_2\text{S}_2\text{O}_3 = \text{Na}_3[\text{Ag}(\text{S}_2\text{O}_3)_2] + \text{NaBr}$
20.  $2 \text{Fe} + \text{HCl} = \text{FeCl}_3 + 3 \text{H}_2$



# ANSWERS

1.  $4 \text{NH}_3 + 5 \text{O}_2 = 4 \text{NO} + 6 \text{H}_2\text{O}$
2.  $2 \text{C}_6\text{H}_6 + 15 \text{O}_2 = 12 \text{CO}_2 + 6 \text{H}_2\text{O}$
3.  $2 \text{H}_3\text{PO}_4 + 3 \text{CaO} = \text{Ca}_3(\text{PO}_4)_2 + 3 \text{H}_2\text{O}$
4.  $3 \text{MgSO}_4 + 2 \text{FeCl}_3 = \text{Mg}_3(\text{Cl}_3)_2 + \text{Fe}_2(\text{SO}_4)_3$
5.  $\text{BaCl}_2 + 2 \text{NaOH} = \text{Ba}(\text{OH})_2 + 2 \text{NaCl}$
6.  $10 \text{CH}_3\text{OH} + 5 \text{O}_2 = 10 \text{CO}_2 + 2 \text{H}_2\text{O}$
7.  $2 \text{B} + 6 \text{NaOH} = 2 \text{NaBO}_2 + 3 \text{H}_2 + 2 \text{Na}_2\text{O}$
8.  $7 \text{CH}_3\text{OH} + 2 \text{Cr}_2\text{O}_7 = 7 \text{HCOOH} + 4 \text{Cr} + 7 \text{H}_2\text{O}$
9.  $4 (\text{NH}_4)_3\text{PO}_4 + 3 \text{Pb}(\text{NO}_3)_4 = \text{Pb}_3(\text{PO}_4)_4 + 12 \text{NH}_4\text{NO}_3$
10.  $\text{C}_6\text{H}_{12}\text{O}_6 + 6 \text{O}_2 = 6 \text{CO}_2 + 6 \text{H}_2\text{O}$
11.  $3 \text{CaCO}_3 + 2 \text{H}_3\text{PO}_4 = \text{Ca}_3(\text{PO}_4)_2 + 3 \text{H}_2\text{CO}_3$
12.  $\text{C}_2 + 2 \text{O}_2(\text{g}) = 2 \text{CO}_2(\text{g})$
13.  $\text{NiCl}_2 + 3 \text{O}_2 = \text{NiO} + \text{Cl}_2\text{O}_5$
14.  $\text{Al} + 3 \text{Cl} = \text{AlCl}_3$
15.  $2 \text{HCl} + \text{Na}_2\text{CO}_3 = 2 \text{NaCl} + \text{H}_2\text{O} + \text{CO}_2$
16.  $4 \text{Fe} + 3 \text{O}_2 = 2 \text{Fe}_2\text{O}_3$
17.  $\text{CaCO}_3 + 2 \text{CH}_3\text{COOH} = (\text{CH}_3\text{COO})_2\text{Ca} + \text{CO}_2 + \text{H}_2\text{O}$
18.  $2 \text{KI} + \text{Pb}(\text{NO}_3)_2 = 2 \text{KNO}_3 + \text{PbI}_2$
19.  $\text{AgBr} + 2 \text{Na}_2\text{S}_2\text{O}_3 = \text{Na}_3[\text{Ag}(\text{S}_2\text{O}_3)_2] + \text{NaBr}$
20.  $2 \text{Fe} + 6 \text{HCl} = 2 \text{FeCl}_3 + 3 \text{H}_2$



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