



## BALANCE THE GIVEN CHEMICAL EQUATIONS

### Worksheet - 59

1.  $2 \text{ Al} + \text{ \_\_\_\_ } \text{ H}_2\text{O} = \text{ \_\_\_\_ } \text{ Al(OH)}_3 + 3 \text{ H}_2$
2.  $\text{ \_\_\_\_ } \text{ NO} + 2 \text{ CO} = \text{ N}_2 + \text{ \_\_\_\_ } \text{ CO}_2$
3.  $\text{ \_\_\_\_ } \text{ Al} + 3 \text{ O}_2 = \text{ \_\_\_\_ } \text{ Al}_2\text{O}_3$
4.  $\text{ \_\_\_\_ } \text{ ZnS} + 3 \text{ O}_2 = \text{ \_\_\_\_ } \text{ ZnO} + 2 \text{ SO}_2$
5.  $\text{ \_\_\_\_ } \text{ HClO}_4 + \text{ P}_4\text{O}_{10} = \text{ \_\_\_\_ } \text{ H}_3\text{PO}_4 + 6 \text{ Cl}_2\text{O}_7$
6.  $2 \text{ FeBr}_3 + \text{ \_\_\_\_ } \text{ H}_2\text{SO}_4 = \text{ Fe}_2(\text{SO}_4)_3 + \text{ \_\_\_\_ } \text{ HBr}$
7.  $\text{ \_\_\_\_ } \text{ H}_3\text{PO}_4 + \text{ Ca(OH)}_2 = \text{ Ca(H}_2\text{PO}_4)_2 + \text{ \_\_\_\_ } \text{ H}_2\text{O}$
8.  $\text{ \_\_\_\_ } \text{ HBr(aq)} + \text{ Ba(OH)}_2(\text{aq}) = \text{ \_\_\_\_ } \text{ H}_2\text{O(l)} + \text{ BaBr}_2(\text{aq})$
9.  $\text{ Cr}_2\text{O}_3 + \text{ \_\_\_\_ } \text{ Cl}_2 + 3 \text{ C} = \text{ \_\_\_\_ } \text{ CrCl}_3 + 3 \text{ CO}$
10.  $\text{ BaI}_2(\text{aq}) + \text{ \_\_\_\_ } \text{ AgNO}_3(\text{aq}) = \text{ Ba(NO}_3)_2(\text{aq}) + \text{ \_\_\_\_ } \text{ AgI(s)}$
11.  $\text{ \_\_\_\_ } \text{ Cu} + \text{ O}_2 = \text{ \_\_\_\_ } \text{ CuO}$
12.  $\text{ \_\_\_\_ } \text{ CH}_3(\text{CH}_2)_6\text{CH}_3 + 25 \text{ O}_2 = 16 \text{ CO}_2 + \text{ \_\_\_\_ } \text{ H}_2\text{O}$
13.  $\text{ C}_2\text{H}_5\text{OH(l)} + \text{ \_\_\_\_ } \text{ O}_2(\text{g}) = 2 \text{ CO}_2(\text{g}) + \text{ \_\_\_\_ } \text{ H}_2\text{O(l)}$
14.  $\text{ C}_{12}\text{H}_{22}\text{O}_{11} + \text{ \_\_\_\_ } \text{ O}_2 = 12 \text{ CO}_2 + \text{ \_\_\_\_ } \text{ H}_2\text{O}$
15.  $2 \text{ C}_3\text{H}_8\text{O(g)} + \text{ \_\_\_\_ } \text{ O}_2(\text{g}) = 6 \text{ CO}_2(\text{g}) + \text{ \_\_\_\_ } \text{ H}_2\text{O(g)}$
16.  $\text{ \_\_\_\_ } \text{ Sn(NO}_2)_4 + \text{ Pt}_3\text{N}_4 = \text{ Sn}_3\text{N}_4 + \text{ \_\_\_\_ } \text{ Pt(NO}_2)_4$
17.  $2 \text{ C}_8\text{H}_{18} + \text{ \_\_\_\_ } \text{ O}_2 = 16 \text{ CO}_2 + \text{ \_\_\_\_ } \text{ H}_2\text{O}$
18.  $\text{ \_\_\_\_ } \text{ CO}_2 + 6 \text{ H}_2\text{O} = \text{ C}_6\text{H}_{12}\text{O}_6 + \text{ \_\_\_\_ } \text{ O}_2$
19.  $\text{ \_\_\_\_ } \text{ MnO}_2 + 4 \text{ Al} = \text{ \_\_\_\_ } \text{ Al}_2\text{O}_3 + 3 \text{ Mn}$
20.  $\text{ \_\_\_\_ } \text{ NaOH} + \text{ H}_3\text{PO}_4 = \text{ Na}_3\text{PO}_4 + \text{ \_\_\_\_ } \text{ H}_2\text{O}$



# ANSWERS

1.  $2 \text{ Al} + 6 \text{ H}_2\text{O} = 2 \text{ Al}(\text{OH})_3 + 3 \text{ H}_2$
2.  $2 \text{ NO} + 2 \text{ CO} = \text{N}_2 + 2 \text{ CO}_2$
3.  $4 \text{ Al} + 3 \text{ O}_2 = 2 \text{ Al}_2\text{O}_3$
4.  $2 \text{ ZnS} + 3 \text{ O}_2 = 2 \text{ ZnO} + 2 \text{ SO}_2$
5.  $12 \text{ HClO}_4 + \text{P}_4\text{O}_{10} = 4 \text{ H}_3\text{PO}_4 + 6 \text{ Cl}_2\text{O}_7$
6.  $2 \text{ FeBr}_3 + 3 \text{ H}_2\text{SO}_4 = \text{Fe}_2(\text{SO}_4)_3 + 6 \text{ HBr}$
7.  $2 \text{ H}_3\text{PO}_4 + \text{Ca}(\text{OH})_2 = \text{Ca}(\text{H}_2\text{PO}_4)_2 + 2 \text{ H}_2\text{O}$
8.  $2 \text{ HBr}(\text{aq}) + \text{Ba}(\text{OH})_2(\text{aq}) = 2 \text{ H}_2\text{O}(\text{l}) + \text{BaBr}_2(\text{aq})$
9.  $\text{Cr}_2\text{O}_3 + 3 \text{ Cl}_2 + 3 \text{ C} = 2 \text{ CrCl}_3 + 3 \text{ CO}$
10.  $\text{BaI}_2(\text{aq}) + 2 \text{ AgNO}_3(\text{aq}) = \text{Ba}(\text{NO}_3)_2(\text{aq}) + 2 \text{ AgI}(\text{s})$
11.  $2 \text{ Cu} + \text{O}_2 = 2 \text{ CuO}$
12.  $2 \text{ CH}_3(\text{CH}_2)_6\text{CH}_3 + 25 \text{ O}_2 = 16 \text{ CO}_2 + 18 \text{ H}_2\text{O}$
13.  $\text{C}_2\text{H}_5\text{OH}(\text{l}) + 3 \text{ O}_2(\text{g}) = 2 \text{ CO}_2(\text{g}) + 3 \text{ H}_2\text{O}(\text{l})$
14.  $\text{C}_{12}\text{H}_{22}\text{O}_{11} + 12 \text{ O}_2 = 12 \text{ CO}_2 + 11 \text{ H}_2\text{O}$
15.  $2 \text{ C}_3\text{H}_8\text{O}(\text{g}) + 9 \text{ O}_2(\text{g}) = 6 \text{ CO}_2(\text{g}) + 8 \text{ H}_2\text{O}(\text{g})$
16.  $3 \text{ Sn}(\text{NO}_2)_4 + \text{Pt}_3\text{N}_4 = \text{Sn}_3\text{N}_4 + 3 \text{ Pt}(\text{NO}_2)_4$
17.  $2 \text{ C}_8\text{H}_{18} + 25 \text{ O}_2 = 16 \text{ CO}_2 + 18 \text{ H}_2\text{O}$
18.  $6 \text{ CO}_2 + 6 \text{ H}_2\text{O} = \text{C}_6\text{H}_{12}\text{O}_6 + 6 \text{ O}_2$
19.  $3 \text{ MnO}_2 + 4 \text{ Al} = 2 \text{ Al}_2\text{O}_3 + 3 \text{ Mn}$
20.  $3 \text{ NaOH} + \text{H}_3\text{PO}_4 = \text{Na}_3\text{PO}_4 + 3 \text{ H}_2\text{O}$



Thanks for downloading our free printable.

We have thousands of such resources in our blog for teachers and parents.

**[You can download them for free here!](#)**

### **Free Printables from Go Science Girls – Fair Usage Policy**

#### **You can ...**

- Download and save this free printable from [gosciencegirls.com](http://gosciencegirls.com) to your computer.
- Print this file and use it as many times as you want in your home, classrooms or for your library.
- Feel free to link our blog post where your visitors can find and download this printable for free.
- When you post online about this resource – please give due credit to [gosciencegirls.com](http://gosciencegirls.com)

#### **You Cannot ...**

- Access this file or download it from other sites apart from [gosciencegirls.com](http://gosciencegirls.com)
- Other websites cannot link to this pdf directly. If required, they are welcomed to link to the blog post from where this pdf can be downloaded.
- The ownership of this pdf rests with GoScienceGirls. No one can claim ownership for this file.
- You are not allowed to sell printed copies of this file to others.
- You are not allowed to store this file electronically and redistribute it (only personal use is allowed).

### **Further Questions?**

Feel free to email us at [contactgosciencegirls@gmail.com](mailto:contactgosciencegirls@gmail.com) for any further questions and suggestions. We would love to hear from you. We promise to respond back as soon as we can.