

Balancing Equations Worksheet #1

Please note that several of these equations are already balanced as written. The answers are in this file and are several lines below the last problem. There are 50 problems .

- $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$
- $\text{N}_2 + \text{H}_2 \rightarrow \text{NH}_3$
- $\text{S}_8 + \text{O}_2 \rightarrow \text{SO}_3$
- $\text{N}_2 + \text{O}_2 \rightarrow \text{N}_2\text{O}$
- $\text{HgO} \rightarrow \text{Hg} + \text{O}_2$
- $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$
- $\text{Zn} + \text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2$
- $\text{SiCl}_4 + \text{H}_2\text{O} \rightarrow \text{H}_4\text{SiO}_4 + \text{HCl}$
- $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{H}_2$
- $\text{H}_3\text{PO}_4 \rightarrow \text{H}_4\text{P}_2\text{O}_7 + \text{H}_2\text{O}$
- $\text{C}_{10}\text{H}_{16} + \text{Cl}_2 \rightarrow \text{C} + \text{HCl}$
- $\text{CO}_2 + \text{NH}_3 \rightarrow \text{OC}(\text{NH}_2)_2 + \text{H}_2\text{O}$
- $\text{Si}_2\text{H}_3 + \text{O}_2 \rightarrow \text{SiO}_2 + \text{H}_2\text{O}$
- $\text{Al}(\text{OH})_3 + \text{H}_2\text{SO}_4 \rightarrow \text{Al}_2(\text{SO}_4)_3 + \text{H}_2\text{O}$
- $\text{Fe} + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3$
- $\text{Fe}_2(\text{SO}_4)_3 + \text{KOH} \rightarrow \text{K}_2\text{SO}_4 + \text{Fe}(\text{OH})_3$
- $\text{C}_7\text{H}_6\text{O}_2 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- $\text{H}_2\text{SO}_4 + \text{HI} \rightarrow \text{H}_2\text{S} + \text{I}_2 + \text{H}_2\text{O}$
- $\text{FeS}_2 + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3 + \text{SO}_2$
- $\text{Al} + \text{FeO} \rightarrow \text{Al}_2\text{O}_3 + \text{Fe}$
- $\text{Fe}_2\text{O}_3 + \text{H}_2 \rightarrow \text{Fe} + \text{H}_2\text{O}$
- $\text{Na}_2\text{CO}_3 + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O} + \text{CO}_2$
- $\text{K} + \text{Br}_2 \rightarrow \text{KBr}$
- $\text{P}_4 + \text{O}_2 \rightarrow \text{P}_2\text{O}_5$
- $\text{C}_2\text{H}_2 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- $\text{K}_2\text{O} + \text{H}_2\text{O} \rightarrow \text{KOH}$
- $\text{H}_2\text{O}_2 \rightarrow \text{H}_2\text{O} + \text{O}_2$
- $\text{Al} + \text{O}_2 \rightarrow \text{Al}_2\text{O}_3$
- $\text{C}_7\text{H}_{16} + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- $\text{Na}_2\text{O}_2 + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{O}_2$
- $\text{SiO}_2 + \text{HF} \rightarrow \text{SiF}_4 + \text{H}_2\text{O}$
- $\text{C} + \text{H}_2\text{O} \rightarrow \text{CO} + \text{H}_2$
- $\text{KClO}_3 \rightarrow \text{KCl} + \text{O}_2$
- $\text{H}_3\text{AsO}_4 \rightarrow \text{As}_2\text{O}_5 + \text{H}_2\text{O}$
- $\text{KClO}_3 \rightarrow \text{KClO}_4 + \text{KCl}$
- $\text{Al}_2(\text{SO}_4)_3 + \text{Ca}(\text{OH})_2 \rightarrow \text{Al}(\text{OH})_3 + \text{CaSO}_4$
- $\text{P}_4\text{O}_{10} + \text{H}_2\text{O} \rightarrow \text{H}_3\text{PO}_4$
- $\text{FeCl}_3 + \text{NH}_4\text{OH} \rightarrow \text{Fe}(\text{OH})_3 + \text{NH}_4\text{Cl}$
- $\text{Sb} + \text{O}_2 \rightarrow \text{Sb}_4\text{O}_6$
- $\text{Ca}_3(\text{PO}_4)_2 + 6 \text{SiO}_2 \rightarrow \text{P}_4\text{O}_{10} + \text{CaSiO}_3$
- $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- $\text{N}_2\text{O}_5 + \text{H}_2\text{O} \rightarrow \text{HNO}_3$
- $\text{Fe}_2\text{O}_3 + \text{CO} \rightarrow \text{Fe} + \text{CO}_2$
- $\text{Al} + \text{HCl} \rightarrow \text{AlCl}_3 + \text{H}_2$
- $\text{PCl}_5 + \text{H}_2\text{O} \rightarrow \text{HCl} + \text{H}_3\text{PO}_4$
- $\text{H}_3\text{BO}_3 \rightarrow \text{H}_4\text{B}_6\text{O}_{11} + \text{H}_2\text{O}$
- $\text{H}_2\text{S} + \text{Cl}_2 \rightarrow \text{S}_8 + \text{HCl}$
- $\text{Mg} + \text{N}_2 \rightarrow \text{Mg}_3\text{N}_2$
- $\text{Fe} + \text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + \text{H}_2$
- $\text{NaOH} + \text{Cl}_2 \rightarrow \text{NaCl} + \text{NaClO} + \text{H}_2\text{O}$

Answers

1. 2, 1 ----> 2
2. 1, 3 ----> 2
3. 1, 12 ----> 8
4. 2, 1 ----> 2
5. 2 ----> 2, 1
6. 6, 6 ----> 1, 6
7. 1, 2 ----> 1, 1
8. 1, 4 ----> 1, 4
9. 2, 2 ----> 2, 1
10. 2 ----> 1, 1
11. 1, 8 ----> 10, 16
12. 1, 2 ----> 1, 1
13. 4, 11 ----> 8, 6
14. 2, 3 ----> 1, 6
15. 4, 3 ----> 2
16. 1, 6 ----> 3, 2
17. 2, 15 ----> 14, 6
18. 1, 8 ----> 1, 4, 4
19. 4, 11 ----> 2, 8
20. 2, 3 ----> 1, 3
21. 1, 3 ----> 2, 3
22. 1, 2 ----> 2, 1, 1
23. 2, 1 ----> 2
24. 1, 5 ----> 2
25. 2, 5 ----> 4, 2
26. 1, 1 ----> 2
27. 2 ----> 2, 1
28. 4, 3 ----> 2
29. 1, 11 ----> 7, 8
30. 2, 2 ----> 4, 1
31. 1, 4 ----> 1, 2
32. 1, 1 ----> 1, 1
33. 2 ----> 2, 3
34. 2 ----> 1, 3
35. 4 ----> 3,
36. 1, 3 ----> 2, 3
37. 1, 6 ----> 4
38. 1, 3 ----> 1, 3
39. 4, 3 ----> 1
40. 2, 6 ----> 1, 6
41. 1, 5 ----> 3, 4
42. 1, 1 ----> 2
43. 1, 3 ----> 2, 3
44. 2, 6 ----> 2, 3
45. 1, 4 ----> 5, 1
46. 6 ----> 1, 7
47. 8, 8 ----> 1, 16
48. 3, 1 ----> 1
49. 3, 4 ----> 1, 4
50. 2, 1 ----> 1, 1