



BALANCE THE GIVEN CHEMICAL EQUATIONS

Worksheet - 10

1. $\underline{\quad}$ Cu + 8 HNO₃ = $\underline{\quad}$ Cu(NO₃)₂ + 4 H₂O + 2 NO
2. $\underline{\quad}$ Fe + 3 O₂ = $\underline{\quad}$ Fe₂O₃
3. Fe₂O₃ + $\underline{\quad}$ C = $\underline{\quad}$ CO + 2 Fe
4. $\underline{\quad}$ CH₄ + 5 O₂ = $\underline{\quad}$ CO₂ + H₂O
5. $\underline{\quad}$ CH₃COCH₃ + 8 NaHCO₃ = 8 CH₃CH₂COONa + $\underline{\quad}$ H₂O + 5 CO₂
6. $\underline{\quad}$ H₂SO₄ + KMnO₄ + Na₂C₂O₄ = MnSO₄ + $\underline{\quad}$ CO₂ + 4 H₂O + KSO₄ + 2 NaSO₄
7. $\underline{\quad}$ NaOH + SO₂ = Na₂SO₃ + H₂O
8. Cu₂S + $\underline{\quad}$ Cu₂O = SO₂ + $\underline{\quad}$ Cu
9. 6 ZnO + $\underline{\quad}$ BrF₃ = $\underline{\quad}$ ZnF₂ + 2 Br₂ + 3 O₂
10. Cu + $\underline{\quad}$ HNO₃ = Cu(NO₃)₂ + $\underline{\quad}$ H₂O + 2 NO₂
11. 2 CO + $\underline{\quad}$ NO = N₂ + $\underline{\quad}$ CO₂
12. 2 NO + $\underline{\quad}$ H₂ = N₂ + $\underline{\quad}$ H₂O
13. $\underline{\quad}$ NaH + O₂ = $\underline{\quad}$ NaOH
14. UF₄ = U + $\underline{\quad}$ F₂
15. K₂CO₃ + $\underline{\quad}$ HCl = $\underline{\quad}$ KCl + CO₂ + H₂O
16. 3 CoCl₂ + $\underline{\quad}$ K₃[Fe(CN)₆] = $\underline{\quad}$ KCl + Co₃[Fe(CN)₆]₂
17. 2 C₃H₈O + $\underline{\quad}$ O₂ = 6 CO₂ + $\underline{\quad}$ H₂O
18. Fe₂O₃ + $\underline{\quad}$ HCl = 2 FeCl₃ + $\underline{\quad}$ H₂O
19. $\underline{\quad}$ NH₄OH + H₂SO₄ = (NH₄)₂SO₄ + $\underline{\quad}$ H₂O
20. $\underline{\quad}$ CH₃OH + 3 O₂ = 2 CO₂ + $\underline{\quad}$ H₂O



ANSWERS

1. $3 \text{ Cu} + 8 \text{ HNO}_3 = 3 \text{ Cu}(\text{NO}_3)_2 + 4 \text{ H}_2\text{O} + 2 \text{ NO}$
2. $4 \text{ Fe} + 3 \text{ O}_2 = 2 \text{ Fe}_2\text{O}_3$
3. $\text{Fe}_2\text{O}_3 + 3 \text{ C} = 3 \text{ CO} + 2 \text{ Fe}$
4. $5 \text{ CH}_4 + 5 \text{ O}_2 = 5 \text{ CO}_2 + \text{H}_2\text{O}$
5. $7 \text{ CH}_3\text{COCH}_3 + 8 \text{ NaHCO}_3 = 8 \text{ CH}_3\text{CH}_2\text{COONa} + 5 \text{ H}_2\text{O} + 5 \text{ CO}_2$
6. $4 \text{ H}_2\text{SO}_4 + \text{KMnO}_4 + \text{Na}_2\text{C}_2\text{O}_4 = \text{MnSO}_4 + 2 \text{ CO}_2 + 4 \text{ H}_2\text{O} + \text{KSO}_4 + 2 \text{ NaSO}_4$
7. $2 \text{ NaOH} + \text{SO}_2 = \text{Na}_2\text{SO}_3 + \text{H}_2\text{O}$
8. $\text{Cu}_2\text{S} + 2 \text{ Cu}_2\text{O} = \text{SO}_2 + 6 \text{ Cu}$
9. $6 \text{ ZnO} + 4 \text{ BrF}_3 = 6 \text{ ZnF}_2 + 2 \text{ Br}_2 + 3 \text{ O}_2$
10. $\text{Cu} + 4 \text{ HNO}_3 = \text{Cu}(\text{NO}_3)_2 + 2 \text{ H}_2\text{O} + 2 \text{ NO}_2$
11. $2 \text{ CO} + 2 \text{ NO} = \text{N}_2 + 2 \text{ CO}_2$
12. $2 \text{ NO} + 2 \text{ H}_2 = \text{N}_2 + 2 \text{ H}_2\text{O}$
13. $2 \text{ NaH} + \text{O}_2 = 2 \text{ NaOH}$
14. $\text{UF}_4 = \text{U} + 2 \text{ F}_2$
15. $\text{K}_2\text{CO}_3 + 2 \text{ HCl} = 2 \text{ KCl} + \text{CO}_2 + \text{H}_2\text{O}$
16. $3 \text{ CoCl}_2 + 2 \text{ K}_3[\text{Fe}(\text{CN})_6] = 6 \text{ KCl} + \text{Co}_3[\text{Fe}(\text{CN})_6]_2$
17. $2 \text{ C}_3\text{H}_8\text{O} + 9 \text{ O}_2 = 6 \text{ CO}_2 + 8 \text{ H}_2\text{O}$
18. $\text{Fe}_2\text{O}_3 + 6 \text{ HCl} = 2 \text{ FeCl}_3 + 3 \text{ H}_2\text{O}$
19. $2 \text{ NH}_4\text{OH} + \text{H}_2\text{SO}_4 = (\text{NH}_4)_2\text{SO}_4 + 2 \text{ H}_2\text{O}$
20. $2 \text{ CH}_3\text{OH} + 3 \text{ O}_2 = 2 \text{ CO}_2 + 4 \text{ H}_2\text{O}$



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