BALANCE THE GIVEN CHEMICAL EQUATIONS

Worksheet - 1

1. $2\ CH_3(CH_2)_4CH_3 + \_\_\_\_\ O_2 = 12\ CO_2 + \_\_\_\_ H_2O$
2. $4\ P + \_\_\_\ O_2 = \_\_\_\ P_2O_5$
3. $2\ Na + \_\_\_\_ H_2O = \_\_\_\_\ NaOH + H_2$
4. $\_\_\_\_\ C_{12}H_{22}O_{11} + 3\ H_{20} = \_\_\_\_\ C_2H_5OH + 50\ CO_2$
5. $\_\_\_\_\ HClO_4 + P_4O_{10} = 4\ H_3PO_4 + \_\_\_\_ Cl_2O_7$
6. $Al_4C_3 + \_\_\_\_\ H_2O = 4\ Al(OH)_3 + \_\_\_ CH_4$
7. $2\ C_3H_8O(g) + \_\_\_\_ O_2(g) = 6\ CO_2(g) + \_\_\_\_ H_2O(g)$
8. $\_\_\_\_\_\ NH_4I + K_2CO_3 = \_\_\_\_\ KI + (NH_4)_2CO_3$
9. $2\ CH_3(CH_2)_6CH_3 + \_\_\_\_\ O_2 = \_\_\_\_\ CO_2 + 18\ H_2O$
10. $6\ CL + \_\_\_\_\ H_2O = \_\_\_\_\ HCL + HCLO_3$
11. $C_2H_6O(l) + \_\_\_\_\ O_2(g) = \_\_\_\_\ CO_2(g) + 3\ H_2O(g)$
12. $MnO_2 + \_\_\_\_ HCl = MnCl_2 + Cl_2 + \_\_\_\_ H_2O$
13. $KMnO_4 + \_\_\_\_ CoF_2 + 8\ HF = Mn + \_\_\_\_ CoF_3 + KF + 4\ H_2O$
14. $2\ AlCl_3 + K_2Cr_2O_7 + \_\_\_\_ H_2SO_4 = Cr_2(SO_4)_3 + K_2SO_4 + \_\_\_\_ H_2O + 3\ Cl_2 + Al_2(SO_4)_3$
15. $\_\_\_\_ AlI_3 + 3\ HgCl_2 = 2\ AlCl_3 + \_\_\_\_ HgI_2$
16. $2\ C_2H_6(g) + \_\_\_\_\_ O_2(g) = \_\_\_\_\_ CO_2(g) + 6\ H_2O(g)$
17. $2\ Na_3PO_4 + \_\_\_\_ MgCl_2 = Mg_3(PO_4)_2 + \_\_\_\_\_ NaCl$
18. $Cl_2O_5 + H_2O = \_\_\_\_\_ HClO_3$
19. $P + \_\_\_\_ Cu^{\{2+\}} + 3\ H_2O = \_\_\_\_ Cu^{\{+\}} + H_3PO_3^{\{-\}} + 3\ H^{\{+\}}$
20. $2\ Fe + \_\_\_\_ Cu_2O = Fe_2O_3 + \_\_\_\_ Cu$

ANSWERS

1. $2\ CH_3(CH_2)_4CH_3 + 19\ O_2 = 12\ CO_2 + 14\ H_2O$
2. $4\ P + 5\ O_2 = 2\ P_2O_5$
3. $2\ Na + 2\ H_2O = 2\ NaOH + H_2$
4. $15\ C_{12}H_{22}O_{11} + 3\ H_{20} = 65\ C_2H_5OH + 50\ CO_2$
5. $12\ HClO_4 + P_4O_{10} = 4\ H_3PO_4 + 6\ Cl_2O_7$
6. $Al_4C_3 + 12\ H_2O = 4\ Al(OH)_3 + 3\ CH_4$
7. $2\ C_3H_8O(g) + 9\ O_2(g) = 6\ CO_2(g) + 8\ H_2O(g)$
8. $2\ NH_4I + K_2CO_3 = 2\ KI + (NH_4)_2CO_3$
9. $2\ CH_3(CH_2)_6CH_3 + 25\ O_2 = 16\ CO_2 + 18\ H_2O$
10. $6\ CL + 3\ H_2O = 5\ HCL + HCLO_3$
11. $C_2H_6O(l) + 3\ O_2(g) = 2\ CO_2(g) + 3\ H_2O(g)$
12. $MnO_2 + 4\ HCl = MnCl_2 + Cl_2 + 2\ H_2O$
13. $KMnO_4 + 7\ CoF_2 + 8\ HF = Mn + 7\ CoF_3 + KF + 4\ H_2O$
14. $2\ AlCl_3 + K_2Cr_2O_7 + 7\ H_2SO_4 = Cr_2(SO_4)_3 + K_2SO_4 + 7\ H_2O + 3\ Cl_2 + Al_2(SO_4)_3$
15. $2\ AlI_3 + 3\ HgCl_2 = 2\ AlCl_3 + 3\ HgI_2$
16. $2\ C_2H_6(g) + 7\ O_2(g) = 4\ CO_2(g) + 6\ H_2O(g)$
17. $2\ Na_3PO_4 + 3\ MgCl_2 = Mg_3(PO_4)_2 + 6\ NaCl$
18. $Cl_2O_5 + H_2O = 2\ HClO_3$
19. $P + 2\ Cu^{\{2+\}} + 3\ H_2O = 2\ Cu^{\{+\}} + H_3PO_3^{\{-\}} + 3\ H^{\{+\}}$
20. $2\ Fe + 3\ Cu_2O = Fe_2O_3 + 6\ Cu$

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