Name : ---------- Date : ----------

Balancing Equation Problems

Balance the following chemical equations.

1. _____ $Ca_2(PO_4)_2$ + _____ SiO_2 + _____ C → _____ $CaSiO_3$ + _____ P_4 + _____ CO

2. _____ $MgNH_4PO_4$ → _____ $Mg_2P_2O_7$ + _____ NH_3 + _____ H_2O

3. _____ C_2N_2 + _____ NaOH → _____ NaCN + _____ NaOCN + _____ H_2O

4. _____ NaOH + _____ $FeSO_4$ → _____ Na_2SO_4 + _____ $Fe(OH)_2$

5. _____ U_3O_8 + _____ HNO_3 → _____ $UO_2(NO_2)_2$ + _____ NO_2 + _____ H_2O

6. _____ $HAsO_2$ → _____ As_2O_3 + _____ H_2O

7. _____ C_6H_6 + _____ O_2 → _____ CO_2 + _____ H_2O

8. _____ $BeSO_4$ + _____ NH_4OH → _____ $Be(OH)_2$ + _____ $(NH_4)_2SO_4$

9. _____ $Be(OH)_2$ + _____ NH_4HF_2 → _____ $(NH_4)_2BeF_4$ + _____ H_2O

10. _____ $MgNH_4PO_4$ → _____ $Mg_2P_2O_7$ + _____ NH_3 + _____ H_2O

11. _____ HNO_3 + _____ $Ca(OH)_2$ → _____ $Ca(NO_3)_2$ + _____ H_2O

12. _____ NaOH + _____ H_2SO_4 → _____ Na_2SO_4 + _____ H_2O

13. _____ $BaCl_2$ + _____ H_2SO_4 → _____ $BaSO_4$ + _____ HCl

14. _____ Zn + _____ $AgNO_3$ → _____ $Zn(NO_3)_2$ + _____ Ag

15. _____ KCN + _____ H_2SO_4 → _____ K_2SO_4 + _____ HCN

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Balancing Equation Problems

Answers

1. 2 $Ca_2(PO_4)_2$ + 6 SiO_2 + 10 C → 6 $CaSiO_3$ + 1 P_4 + 10 CO

2. 2 $MgNH_4PO_4$ → 1 $Mg_2P_2O_7$ + 2 NH_3 + 1 H_2O

3. 1 C_2N_2 + 2 NaOH → 1 NaCN + 1 NaOCN + 1 H_2O

4. 2 NaOH + 1 $FeSO_4$ → 1 Na_2SO_4 + 1 $Fe(OH)_2$

5. 1 U_3O_8 + 8 HNO_3 → 3 $UO_2(NO_2)_2$ + 2 NO_2 + 4 H_2O

6. 2 $HAsO_2$ → 1 As_2O_3 + 1 H_2O

7. 2 C_6H_6 + 15 O_2 → 12 CO_2 + 6 H_2O

8. 1 $BeSO_4$ + 2 NH_4OH → 1 $Be(OH)_2$ + 1 $(NH_4)_2SO_4$

9. 1 $Be(OH)_2$ + 2 NH_4HF_2 → 1 $(NH_4)_2BeF_4$ + 2 H_2O

10. 2 $MgNH_4PO_4$ → 1 $Mg_2P_2O_7$ + 2 NH_3 + 1 H_2O

11. 2 HNO_3 + 1 $Ca(OH)_2$ → 1 $Ca(NO_3)_2$ + 2 H_2O

12. 2 NaOH + 1 H_2SO_4 → 1 Na_2SO_4 + 2 H_2O

13. 1 $BaCl_2$ + 1 H_2SO_4 → 1 $BaSO_4$ + 2 HCl

14. 1 Zn + 2 $AgNO_3$ → 1 $Zn(NO_3)_2$ + 2 Ag

15. 2 KCN + 1 H_2SO_4 → 1 K_2SO_4 + 2 HCN