Name : ._____

Date: -----

Naming and Balancing Equations

Identify each of the following equations and balance them.

(a)
$$C_2H_4 + O_2 \rightarrow CO_2 + H_2O$$

Type of reaction:

(b)
$$VF_5 + HI \rightarrow V_2I_{10} + HF$$

Type of reaction:

(c)
$$Hg_2I_2 + O_2 \rightarrow Hg_2O + I_2$$

Type of reaction:

(d)
$$C_2H_2 + H_4 \rightarrow C_2H_4$$

Type of reaction:

(e)
$$Zn + CuCl_2 \rightarrow ZnCl_2 + Cu$$

Type of reaction:

(f)
$$HCN + CuSO_4 \rightarrow H_2SO_4 + Cu(CN)_2$$

Type of reaction:

(g) Ca +
$$H_2O \rightarrow Ca(OH)_2 + H_2$$

Type of reaction:

(h)
$$H_2CO_3 \rightarrow H_2O + CO_2$$

Type of reaction:

(i)
$$Na_3PO_4 + KOH \rightarrow NaOH + K_3PO_4$$

Type of reaction:

(j) Pb +
$$FeSO_4 \rightarrow PbSO_4 + Fe$$

Type of reaction:

(k)
$$BF_3 + H_2O \rightarrow B_2O_3 + HF$$

Type of reaction:

(I)
$$N_2 + H_2 \rightarrow NH_3$$

Type of reaction:

Name : ._____

Date: -----

Naming and Balancing Equations

Answers

(a)
$${}^{1}C_{2}H_{4} + {}^{3}O_{2} \rightarrow {}^{2}CO_{2} + {}^{2}H_{2}O$$

Type of reaction: Combustion

(b)
2
 VF₅ + 10 HI \rightarrow 1 V₂I₁₀ + 10 HF

Type of reaction: Double displacement

(c)
2
 Hg₂I₂ + 1 O₂ \rightarrow 2 Hg₂O + 2 I₂

Type of reaction: Single displacement

(d)
$${}^{1}C_{2}H_{2} + {}^{1}H_{4} \rightarrow {}^{1}C_{2}H_{4}$$

Type of reaction: Synthesis

(e)
$$\frac{1}{2}$$
 Zn + $\frac{1}{2}$ CuCl₂ \rightarrow $\frac{1}{2}$ ZnCl₂ + $\frac{1}{2}$ Cu

Type of reaction: Single displacement

(f) 2 HCN +
$$1 \text{ CuSO}_4 \rightarrow 1 \text{ H}_2 \text{SO}_4 + 2 \text{ Cu(CN)}_2$$

Type of reaction: Double displacement

(g) 1 Ca +
$$\frac{2}{2}$$
 H₂O \rightarrow 1 Ca(OH)₂ + $\frac{1}{2}$ H₂

Type of reaction: Single displacement

(h)
1
 H $_{2}$ CO $_{3} \rightarrow ^{1}$ H $_{2}$ O + 1 CO $_{2}$

Type of reaction: Decomposition

(i)
$$1 \text{ Na}_3 \text{PO}_4 + 3 \text{ KOH} \rightarrow 3 \text{ NaOH} + 1 \text{ K}_3 \text{PO}_4$$

Type of reaction: Double displacement

(j)
$$\frac{1}{1}$$
 Pb + $\frac{1}{1}$ FeSO₄ \rightarrow $\frac{1}{2}$ PbSO₄ + $\frac{1}{1}$ Fe

Type of reaction: Single displacement

(k)
2
 BF $_{3}$ + 3 H $_{2}$ O \rightarrow 1 B $_{2}$ O $_{3}$ + 6 HF

Type of reaction: Double displacement

(1)
$$1 \text{ N}_2 + 3 \text{ H}_2 \rightarrow 2 \text{ NH}_3$$

Type of reaction: Synthesis