**Balancing Equations Buffet** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Instructions:** Choose equations from each section to total at least 100 points. Appetizers are worth 5 points, entrees are worth 10 points, and desserts are 15 points. ***On the attached sheet,*** write the ***final balanced equation*** (with the #) for the ones you choose, writing the reactions in the appropriate section. You can choose one of the combinations given in the table below, or make your own as long as the total point values is at least 100 points.

***Suggested Combinations:***

|  |  |  |
| --- | --- | --- |
| **Home Cooking** | **House Special** | **Five Star Restaurant** |
| *Appetizers (9) 45 pts.*  *Entrée (4) 40 pts.*  *Dessert (1) 15 pts.* | *Appetizers (5) 25pts*  *Entrée(3) 30pts*  *Dessert (3) 45pts* | *Appetizers (3) 15pts*  *Entrée(4) 40pts*  *Dessert (3) 45pts* |

**Appetizers (5 points each)**

**A1)** \_\_4\_\_ P + \_\_\_\_O2 🡪 \_\_\_\_P2O5

**A2)** \_\_2\_\_ KClO3 🡪 \_\_\_\_ KCl + \_\_\_\_ O2

**A3)** \_\_\_\_ NaCl + \_\_\_\_ F2 🡪 \_\_2\_\_ NaF + \_\_\_\_ Cl2

**A4)** \_\_\_\_ Ag2O 🡪 \_4\_\_\_ Ag + \_\_\_\_O2

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**A5)** \_\_\_\_ S8­ + \_\_\_\_O2 🡪 \_\_8\_\_ SO3

**A6)** \_2\_ NH3 + \_\_ O 🡪\_\_ NO + \_\_ H2O

**A7)** \_3 \_ C + \_\_ H2 🡪 \_\_ C3H8

**A8)** \_\_ CaO + \_\_ MnI4 🡪 \_\_ MnO2 + 2\_ CaI2

**A9)** \_\_ Fe2O3 + \_3\_ H2O 🡪 \_\_ Fe(OH)3

**A10)** \_\_ C2H2 + \_\_ H2 🡪 \_1\_ C2H6

**Entrées (10 points each)**

**E1)** \_\_ VF5 + \_\_ HI 🡪 \_\_ V2I10 + \_\_ HF

**j0398005[1]E2)** \_\_ OsO4 + \_\_ PtCl4 🡪 \_\_ PtO2 + \_\_ OsCl8

**E3)** \_\_ H3 + \_\_\_ NaBr 🡪 \_\_ HBr + \_\_ Na3

**E4)** \_\_ CF4 + \_\_ Br2 🡪 \_\_ CBr4 + \_\_ F2

**E5)** \_\_\_\_ K + \_\_\_\_ MgBr 🡪 \_\_\_\_ KBr + \_\_\_\_ Mg

**E6)** \_\_\_\_ Na + \_\_\_\_ H2O 🡪 \_\_\_\_ NaOH + ­­­\_\_\_\_H2

**E7)** \_\_\_\_ H2 + \_\_\_\_ O2 🡪 \_\_\_\_ H2O

**E8)** \_\_\_\_ Pb(OH)2 + \_\_\_\_ HCl 🡪 \_\_\_\_ H2O + \_\_\_\_ PbCl2

**E9)** \_\_ Hg2I2 + \_\_ O2 🡪 \_\_ Hg2O + \_\_ I2

**E10)** \_\_\_\_ NaBr + \_\_\_\_ CaF2 🡪 \_\_\_\_ NaF + \_\_\_\_ CaBr2

**Desserts (15 points each)**

**D1)** \_\_\_\_ FeCl3 + \_\_\_\_ NaOH 🡪 \_\_\_\_ Fe(OH)3 + \_\_\_\_NaCl

**D2)** \_\_ C6H6 + \_\_ O2 🡪 \_\_ H2O + \_\_ CO2

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**D3)** \_\_\_\_ CO2 + \_\_\_\_ H2O 🡪 \_\_\_\_ C6H12O6 + \_\_\_\_O2

**D4)** \_\_\_\_ Y(NO3)2 + \_\_ GaPO4 🡪 \_\_ YPO4 + \_\_ Ga(NO­3)2

**D5)** \_\_\_\_ AlBr3 + \_\_\_\_ K2SO4 🡪 \_\_\_\_ KBr + \_\_\_\_ Al2(SO4)3

**D6)** \_\_\_\_ HCl + \_\_\_\_ CaCO3 🡪 \_\_\_\_ CaCl2 + \_\_\_\_H2O + \_\_\_\_ CO2

**D7)** \_\_\_\_ HNO3 + \_\_\_\_ NaHCO3 🡪 \_\_\_\_ NaNO3 + \_\_\_\_ H2O + \_\_\_\_ CO2

**D8)** \_\_ NaI + \_\_ Pb(SO4)2 🡪 \_\_ PbI4 + \_\_ Na2SO4

**D9)** \_\_ Fe(OH)3 🡪 \_\_ Fe2O3 + \_\_ H2O

**D10)** \_\_ HNO3 + \_\_ Mg(OH)2 🡪 \_\_H2O + \_\_ Mg(NO3)2

**Balance Buffet – Answer Sheet**

***Menu Selected - EXAMPLE***

|  |  |  |  |
| --- | --- | --- | --- |
| **Course** | **Total Number Selected** | **x Points per course** | **Total Points** |
| *Appetizers* | 5 | x 5 | 25 |
| *Entrees* | 3 | x 10 | 30 |
| *Desserts* | 3 | x 15 | 45 |
| ***Overall Total*** | | | **100** |

***Menu Selected – YOUR MENU!!!!***

|  |  |  |  |
| --- | --- | --- | --- |
| **Course** | **Total Number Selected** | **x Points per course** | **Total Points** |
| *Appetizers* |  | x 5 |  |
| *Entrees* |  | x 10 |  |
| *Desserts* |  | x 15 |  |
| ***Overall Total*** | | |  |

*\*\*Only your final balanced equations should be recorded in the appropriate sections below!!!\*\**

**Appetizers**

**Entrees**

**Desserts**