**Practice Problems: Chemical Equations**

Directions: Look over the chemical equation. Count the atoms in reactants and products and use that to fill out the chart. Then answer the questions. Then try to balance the equation if it is not already balanced.

1) Methane Combustion

a) CH4 + O2 🡪 CO2 + H2O

|  |  |  |
| --- | --- | --- |
| Elements | Reactants | Products |
|  |  |  |

b) Does this question follow the Law of Conservation of Matter? Why/why not?

c) Write the correct/balanced equation here.

2) Combining Zinc and sulfuric acid (from our first lab!)

a) Zn + H2SO4 🡪 ZnSO4 + H2

|  |  |  |
| --- | --- | --- |
| Elements | Reactants | Products |
|  |  |  |

b) Does this question follow the Law of Conservation of Matter? Why/why not?

c) Write the correct/balanced equation here.

3) Combining magnesium and hydrochloric acid (from our first lab!)

a) Mg + HCl 🡪 MgCl2 + H2

|  |  |  |
| --- | --- | --- |
| Elements | Reactants | Products |
|  |  |  |

b) Does this question follow the Law of Conservation of Matter? Why/why not?

c) Write the correct/balanced equation here.

4) Combining magnesium and manganese oxide

a) 3Mg + Mn2O3 🡪 2MgO + Mn

|  |  |  |
| --- | --- | --- |
| Elements | Reactants | Products |
|  |  |  |

b) Does this question follow the Law of Conservation of Matter? Why/why not?

c) Write the correct/balanced equation here.