

Name: _____

Period: _____

Counting Atoms and Identifying Balanced Equations

For each of the equations, count the number of atoms of each type of atom in the reactants and the products. Record the count in the table and then decide if the equation is balanced.

Number	Equation	Atom Counts			Is it Balanced?
		Element	Reactants	Products	
1	$\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$	Element	Reactants	Products	
2	$2 \text{Na} + \text{I}_2 \rightarrow 2 \text{NaI}$	Element	Reactants	Products	
3	$\text{N}_2 + 2 \text{O}_2 \rightarrow 2 \text{N}_2\text{O}$	Element	Reactants	Products	
4	$\text{N}_2 + 3 \text{H}_2 \rightarrow 2 \text{N} + \text{H}_3$	Element	Reactants	Products	
5	$2 \text{KI} + \text{Cl}_2 \rightarrow 2 \text{KCl} + \text{I}_2$	Element	Reactants	Products	

Number	Equation	Atom Counts			Is it Balanced?
		Element	Reactants	Products	
6	$2 \text{HCl} + \text{Ca}(\text{OH})_2 \rightarrow \text{CaCl}_2 + \text{H}_2\text{O}$	Element	Reactants	Products	
7	$\text{KClO}_3 \rightarrow \text{KCl} + \text{O}_2$	Element	Reactants	Products	
8	$\text{K}_3\text{PO}_4 + \text{HCl} \rightarrow 3 \text{KCl} + \text{H}_3\text{PO}_4$	Element	Reactants	Products	
9	$2 \text{S} + 3 \text{O}_2 \rightarrow 2 \text{SO}_3$	Element	Reactants	Products	
10	$2 \text{KI} + \text{Pb}(\text{NO}_3)_2 \rightarrow \text{KNO}_3 + \text{PbI}_2$	Element	Reactants	Products	