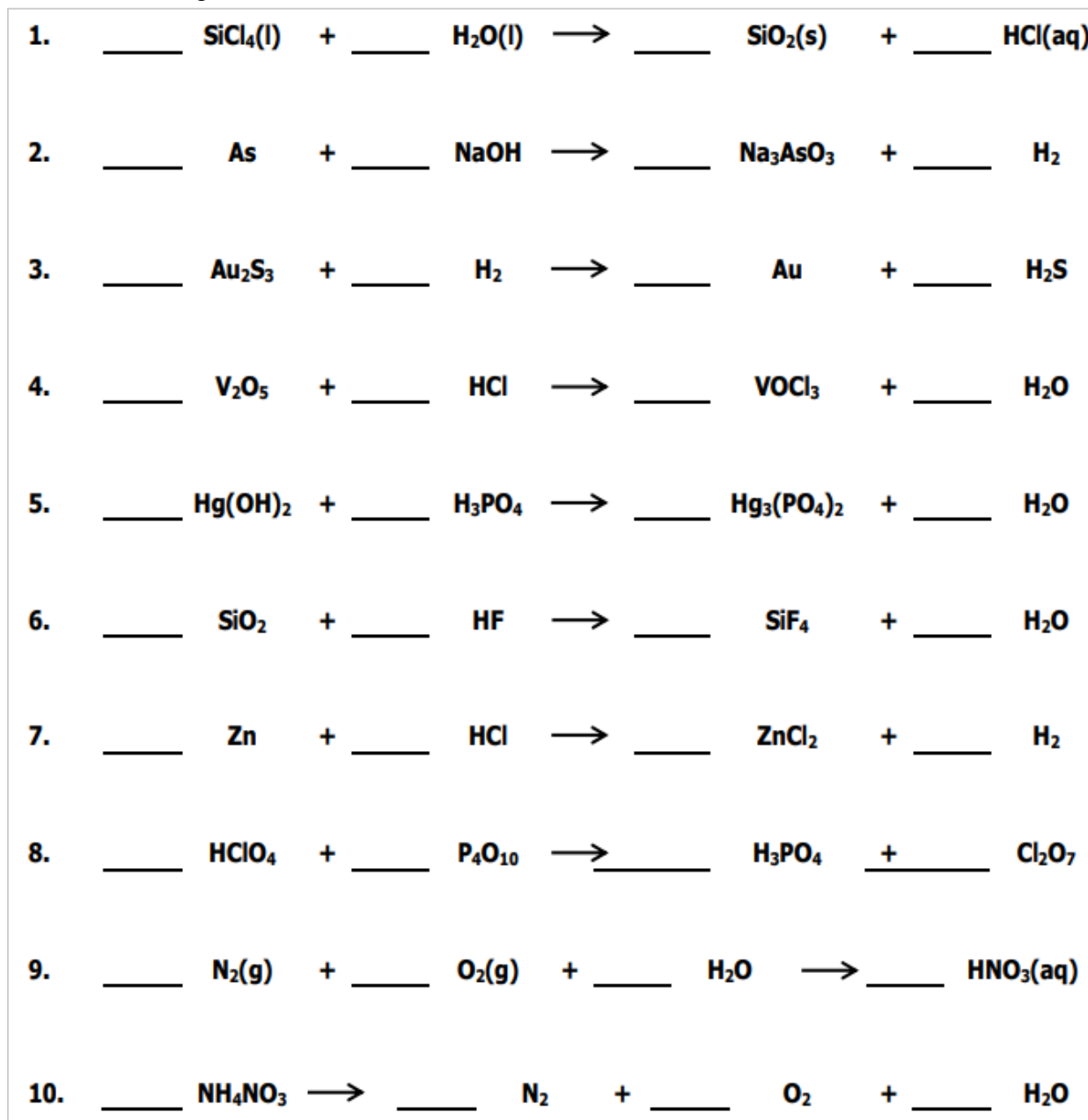


Practice: Chemical Equations<sup>1</sup>

1. Balance the following reactions.



- For more practice:
  - Etext End of the Chapter Section Problems Questions 3.36 → 3.43. Answers are on Moodle.
  - [Balancing Equations Practice Quiz \(thoughtco.com\)](http://thoughtco.com/Balancing-Equations-Practice-Quiz)
  - [How to Balance Equations - Printable Worksheets \(thoughtco.com\)](http://thoughtco.com/How-to-Balance-Equations-Printable-Worksheets)

<sup>1</sup> Answers are provided in a separate document.

2. This table represents some of the more common type of reactions:

<b>Synthesis</b>	$A + B \rightarrow AB$
<b>Decomposition</b>	$AB \rightarrow A + B$
<b>Single replacement</b>	$AB + C \rightarrow A + CB$
<b>Double replacement</b>	$AB + CD \rightarrow AD + CB$
<b>Precipitation</b>	$AB(aq) + CD(aq) \rightarrow AD(s) + CB(aq)$
<b>Combustion</b>	$C_nH_m + O_2(g) \rightarrow CO_2(g) + H_2O(g \text{ or } l)$

For each of the following chemical reactions:

- Balance the equation, if needed.
- Give the word equation.
- State the type of reaction shown – using the above table. The first reaction is done for you.

Balance	$2 \text{CuO}(s) \rightarrow 2 \text{Cu}(s) + \text{O}_2(g)$
Word equation	Copper (I) oxide $\rightarrow$ Copper + Oxygen
Type of reaction	Decomposition
Balance	$C_3H_8(g) + O_2(g) \rightarrow CO_2(g) + H_2O(g)$
Word equation	
Type of reaction	
Balance	$NaCl(aq) + AgNO_3(aq) \rightarrow AgCl(s) + NaNO_3(aq)$
Word equation	
Type of reaction	
Balance	$NaOH(aq) + H_2SO_4(aq) \rightarrow Na_2SO_4(aq) + H_2O(l)$
Word equation	
Type of reaction	

Balance	$\text{Mg(s)} + \text{HCl(aq)} \rightarrow \text{MgCl}_2\text{(aq)} + \text{H}_2\text{(g)}$
Word equation	
Type of reaction	
Balance	$\text{Na (s)} + \text{Cl}_2\text{(g)} \rightarrow \text{NaCl (s)}$
Word equation	
Type of reaction	
Balance	$\text{CH}_4\text{(g)} + \text{O}_2\text{(g)} \rightarrow \text{CO}_2\text{(g)} + \text{H}_2\text{O(l)}$
Word equation	
Type of reaction	
Balance	$\text{NaI(aq)} + \text{AgNO}_3\text{(aq)} \rightarrow \text{NaNO}_3\text{(aq)} + \text{AgI(s)}$
Word equation	
Type of reaction	
Balance	$\text{Al(s)} + \text{HCl(aq)} \rightarrow \text{AlCl}_3\text{(aq)} + \text{H}_2\text{(g)}$
Word equation	
Type of reaction	