

Name: \_\_\_\_\_ Section: \_\_\_\_\_

### Identifying Acid & Base Reactions

Directions: The following chemical reactions illustrate what can happen when acids and bases react with each other or with other substances. Classify the following as an acid, base, or neutralization reaction and explain your reasoning.

1. $2\text{NaOH} + \text{H}_2\text{SO}_4 \rightarrow 2\text{H}_2\text{O} + \text{Na}_2\text{SO}_4$	
Reaction Type:	Reasoning:

2. $\text{Zn} + \text{H}_2\text{SO}_4 \rightarrow \text{ZnSO}_4 + \text{H}_2$	
Reaction Type:	Reasoning:

3. $\text{NaOH} \xrightarrow{\text{H}_2\text{O}} \text{Na}^+ + \text{OH}^-$	
Reaction Type:	Reasoning:

4. $\text{HCl} + \text{KOH} \rightarrow \text{KCl} + \text{H}_2\text{O}$	
Reaction Type:	Reasoning:

5. $\text{HCO}_3^- \rightarrow \text{CO}_3^{2-} + \text{H}^+$	
Reaction Type:	Reasoning:

6. $2\text{Al} + 6\text{HCl} \rightarrow 2\text{AlCl}_3 + 3\text{H}_2$	
Reaction Type:	Reasoning:

7. $\text{H}_2\text{SO}_4 + \text{CuO} \rightarrow \text{CuSO}_4 + \text{H}_2\text{O}$	
Reaction Type:	Reasoning:

8.	$\text{HCl} + \text{H}_2\text{O} \rightarrow \text{H}_3\text{O}^+ + \text{Cl}^-$
Reaction Type:	Reasoning:

9.	$\text{HCO}_3^- + \text{H}^+ \rightarrow \text{H}_2\text{CO}_3$
Reaction Type:	Reasoning:

10.	$\text{HNO}_3 + \text{NaOH} \rightarrow \text{NaNO}_3 + \text{H}_2\text{O}$
Reaction Type:	Reasoning: