Chemistry: Form N9.4A

ACIDS, BASES, AND SALTS

Name _____

te Period

Næutralization

1im

describe neutralization

Notes

- **★** Neutralization
 - ☼ Definition reaction between an acid and a base to produce a salt and water
 - **☆** Example

$$HCl(aq) + NaOH(aq) \rightarrow NaCl(aq) + H_2O$$

- ☆ Ions present during neutralization reaction above
 - $\star HCl + H_2O \rightarrow H_3O^+$
 - \Rightarrow NaOH + H₂O \rightarrow Na⁺ + OH⁻ + H₂O
 - \star NaCl + H₂O \rightarrow Na⁺ + Cl⁻ + H₂O

$$H_3O^+ + Cl^- + Na^+ + OH^- \rightarrow Na^+ + Cl^- + H_2O$$

spectator ions

spectator ions

NET REACTION: $H_3O^+ + OH^- \rightarrow 2H_2O$

Answer the questions below by circling the number of the correct response

- 1. What substances form during an acid-base neutralization?
 - (1) hydronium and hydroxide (2) salt and water (3) acid and base
 - (4) metal and nonmetal
- 2. During the following acid-base neutralization, $H_2SO_4 + Mg(OH)_2 \rightarrow 2H_2O + MgSO_4$, what are the spectator ions? (1) H^+ and OH^- (2) H_3O^+ and OH^- (3) Mg^{2+} and SO_4^{-2-} (4) $2H_2O$