

Acids, Bases, and Salts Review

- ① An Arrhenius acid is defined as any compound dissociating in an aqueous solution to form _____ ions. Example: $\text{HNO}_3(\text{aq.}) \rightarrow \text{H}^+(\text{aq.}) + \text{NO}_3^-(\text{aq.})$. Complete the following equation:



- ② An Arrhenius base is defined as any compound dissociating in an aqueous solution to form _____ ions. Example: $\text{KOH}(\text{aq.}) \rightarrow \text{K}^+(\text{aq.}) + \text{OH}^-(\text{aq.})$. Complete the following equation:



- ③ Salts are compounds that dissociate in an aqueous solution releasing neither _____ nor _____ ions. Example: $\text{KCl}(\text{aq.}) \rightarrow \text{K}^+(\text{aq.}) + \text{Cl}^-(\text{aq.})$. Complete the following equation:



- ④ A solution that has strong conductivity and reacts with the metal to make hydrogen gas is a

- a Strong Base b Weak Base c Strong Acid d Weak Acid

Answers ____

- ⑤ Which of the following is slippery to touch?

- a Strong Acid b Strong Base c Strong Electrolyte d Water

Answers ____

- ⑥ The hydronium ion is

- a H_3O^+ b H_2O c OH^- d H_2

Answers ____

- ⑦ A substance that changes color in an acidic or basic solution is called

- a Neutralizer b Inhibitor c pH indicator d Catalyst

Answers ____

- ⑧ Name the following acids and bases

HF _____

HNO_3 _____

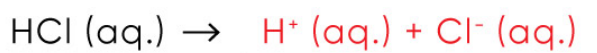
KOH _____

$\text{Mg}(\text{OH})_2$ _____

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Answers

- ① An Arrhenius acid is defined as any compound dissociating in an aqueous solution to form hydrogen ions. Example: $\text{HNO}_3(\text{aq.}) \rightarrow \text{H}^+(\text{aq.}) + \text{NO}_3^-(\text{aq.})$. Complete the following equation:



- ② An Arrhenius base is defined as any compound dissociating in an aqueous solution to form hydroxide ions. Example: $\text{KOH}(\text{aq.}) \rightarrow \text{K}^+(\text{aq.}) + \text{OH}^-(\text{aq.})$. Complete the following equation:



- ③ Salts are compounds that dissociate in an aqueous solution releasing neither hydrogen nor hydroxyl ions. Example: $\text{KCl}(\text{aq.}) \rightarrow \text{K}^+(\text{aq.}) + \text{Cl}^-(\text{aq.})$. Complete the following equation:



- ④ A solution that has strong conductivity and reacts with the metal to make hydrogen gas is a

a Strong Base b Weak Base c Strong Acid d Weak Acid

Answers c

- ⑤ Which of the following is slippery to touch?

a Strong Acid b Strong Base c Strong Electrolyte d Water

Answers b

- ⑥ The hydronium ion is

a H_3O^+ b H_2O c OH^- d H_2

Answers a

- ⑦ A substance that changes color in an acidic or basic solution is called

a Neutralizer b Inhibitor c pH indicator d Catalyst

Answers c

- ⑧ Name the following acids and bases

HF Hydrofluoric acid

HNO_3 Nitric acid

KOH Potassium hydroxide

$\text{Mg}(\text{OH})_2$ Magnesium hydroxide