



Name _____ Class _____ Date _____

1

Which of the following is the **strongest Brønsted-Lowry base**?

- A I^-
- B Br^-
- C Cl^-
- D F^-

**2**

In the reaction $NH_3 + HCl \rightarrow NH_4^+ + Cl^-$, the NH_3 acts as

- A a Brønsted acid, only
- B a Brønsted base, only
- C both a Brønsted acid and a Brønsted base
- D neither a Brønsted acid nor a Brønsted base

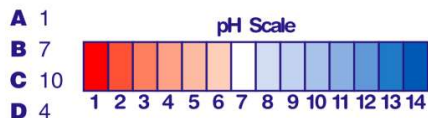
3

As an **acid solution** is added to neutralize a **base solution**, the OH^- concentration of the base solution

- A decreases
- B increases
- C remains the same

**4**

The **pH** of a solution that is formed by the **neutralization** of **1.0 M H_2SO_4** and **1.0 M KOH** is closest to

**5**

Both $HNO_3(aq)$ and $CH_3COOH(aq)$ can be classified as

- A Arrhenius acids that turn blue litmus red
- B Arrhenius bases that turn blue litmus red
- C Arrhenius acids that turn red litmus blue
- D Arrhenius bases that turn red litmus blue

6

What is the **molarity** of a nitric acid solution, HNO_3 , if 20.0 mL of the solution is needed to exactly **neutralize** 10.0 mL of a 1.67 M NaOH solution?

- A 3.34 M
- B 1.67 M
- C 0.835 M
- D 0.334 M

7

Which **compound** is classified as an **electrolyte**?

- A $C_6H_{12}O_6$
- B $C_{12}H_{22}O_{11}$
- C CH_3OH
- D $Ca(OH)_2$

8

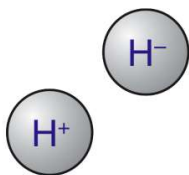
Which substance is an **Arrhenius base**?

- A KCl
- B CH_3Cl
- C KOH
- D CH_3OH

**9**

One **acid-base theory** states that an **acid** is

- A an H^- donor
- B an H^- acceptor
- C an H^+ donor
- D an H^+ acceptor

**10**

What is the **pH** of a solution that results from the **complete neutralization** of an **HCl solution** with a **KOH solution**?

- A 1
- B 7
- C 10
- D 4

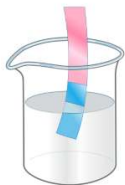




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**D**

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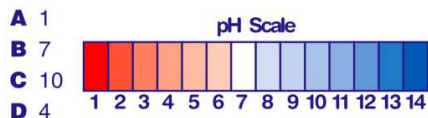
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3 As an **acid solution** is added to neutralize a **base solution**, the OH^- concentration of the base solution

- A decreases
- B increases
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**A**

4 The **pH** of a solution that is formed by the **neutralization** of **1.0 M H_2SO_4** and **1.0 M KOH** is closest to

**B**

5 Both $HNO_3(aq)$ and $CH_3COOH(aq)$ can be classified as

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A

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C

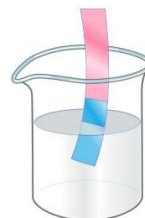
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D

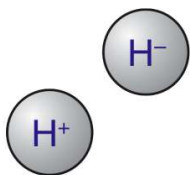
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**C**

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**C**

10 What is the **pH** of a solution that results from the **complete neutralization** of an **HCl solution** with a **KOH solution**?

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- D 4

**B**