What are Acids and Bases?

Worksheet

An acid donates H protons; a base accepts them. Strong acids (HCl) and bases (NaOH) fully dissociate; weak acids (acetic) partially dissociate.

Questions

1. HCl is a

A) weak base
B) strong acid
C) weak acid
D) neutral

2. Which is a base?

A) HNO
B) NH
C) HSO
D) HF

3. Acid + base product?

A) gas
B) acid
C) salt + water
D) base

4. Acetic acid is

A) strong acid
B) weak acid
C) strong base
D) neutral

5. Classify HCl, NaOH, CHCOOH as strong/weak acid or base.

6. Write the reaction: HCl + NaOH ?

7. Why is vinegar sour but ammonia solutions slippery?

8. Define: What is an acid?

9. Define: What is a base?

10. Define: Strong vs weak acid?

Answer Key

1. B) strong acid - HCl fully dissociates in water - strong acid.
2. B) NH - NH (ammonia) accepts protons - a base.
3. C) salt + water - Neutralization: acid + base salt + water.
4. B) weak acid - Acetic acid only partly dissociates - weak acid.
5. HCl = strong acid (100% dissociates) NaOH = strong base (100% dissociates) CHCOOH = weak acid (partial dissociation)
6. HCl + NaOH NaCl + HO Acid + base salt + water
7. Vinegar (acetic acid) has free H ions sour taste Ammonia (base) accepts H slippery feel
8. A substance that donates H protons. Examples: HCl, HSO, acetic acid.
9. A substance that accepts H protons. Examples: NaOH, NH, Ca(OH).
10. Strong = 100% dissociates (HCl). Weak = partial (acetic acid).