

SAT Chemistry Practice Test 35

1. The difference between HCl and HC₂H₃O₂ as acids is

- A. the first has less hydrogen in solution
- B. the second has more ionized hydrogen
- C. the first is highly ionized
- D. the second is highly ionized
- E.

2. The hydronium ion is represented as

- A. H₂O⁺
- B. H₃O⁺
- C. HOH⁺
- D. H⁺
- E.

3. H₂SO₄ is a strong acid because it is

- A. slightly ionized
- B. unstable
- C. an organic compound
- D. highly ionized
- E.

4. The common ionic reaction of an acid with a base involves ions of

- A. hydrogen and hydroxide
- B. sodium and chloride
- C. hydrogen and hydronium
- D. hydroxide and nitrate
- E.

5. Which pH is an acid solution?

- A. 3
- B. 7

C. 9

D. 10

E.

6. The pH of a solution with a hydrogen ion concentration of 1×10^{-3} is

A. +3

B. -3

C. ± 3

D. $1 + 3$

E.

7. According to the Bronsted-Lowry Theory, an acid is

A. a proton donor

B. a proton acceptor

C. an electron donor

D. an electron acceptor

E.

8. A buffer solution

A. changes pH rapidly with the addition of an acid

B. does not change pH at all

C. resists changes in pH

D. changes pH only with the addition of a strong base

E.

9. The point at which a titration is complete is called the

A. end point

B. equilibrium point

C. calibrated point

D. chemical point

E.

10. If 10.mL of 1 M HCl was required to titrate a 20.mL NaOH solution of unknown concentration to its end point, what was the concentration of the NaOH?

A. 0.5 M

B. 1.5 M

C. 2 M

D. 2.5 M

E. 0 M