

Bauk's Chem. Ch. 14 (and Ch. 15 Overview) Test Review

This is an optional assignment due the day of the test.

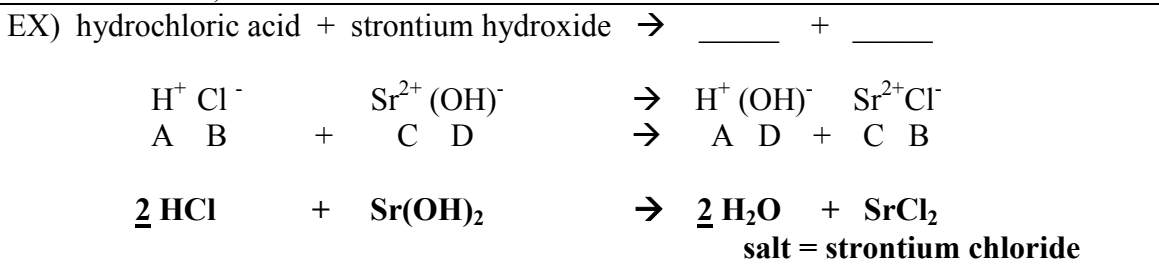
- Materials:** loose leaf paper, pen and/or pencil (You will be given a periodic table.)
Format: math problem; multiple choice; short answers; equations to write and balance
Test date: _____
Test value: 200 points

BACKGROUND INFO:

1. Be able to identify a formula as an **acid, base, or salt**. For this review, give an example of each.
2. **Acid**—characteristics; pH range; recognize and be able to crisscross formulas. Give the names and chemical formulas for the **six major acids** we use in class.
3. **ACID + BASE** → _____ + _____
4. **Base**—characteristics; pH range; recognize and be able to crisscross formulas. Give one chemical formula for a base.
5. **Dissociation**—what is this?
6. **Ions**—give the formulas for hydrogen, hydroxide, hydronium
7. **Monoprotic vs. diprotic vs. triprotic vs. polyprotic** acids – compare and contrast. Give an example of a chemical formula for each.
8. **Neutral**—characteristics; pH value
9. **Neutralization**—what is the net ionic equation for all neutralization reactions?
10. **pH** –What does it measure? What is the neutral pH? What is the pH range for an acid? What is the pH range for a base?
These will be given to you for pH problems: $[H^+][OH^-] = 10^{-14} M$ $pH + pOH = 14$
11. **Salt**—recognize and crisscross formulas. Give one example of a chemical formula for a salt for this review.
12. **Self-ionization of water**—what is this equation?
13. Give an example of a reaction following for the format in the large box below:

Neutralization reactions (all double displacement):

- a) Predict the products
- b) Write all chemical formulas (crisscross)
- c) Balance the equation
- d) Name the salt formed



14. Solve the pH problem in the box below:

pH math problems (do not need a calculator)

Example: A solution has $[H^+]$ of $1.0 \times 10^{-13} M$.

- a) What is $[H^+]$?
- b) What is the pH?
- c) What is the pOH?
- d) Is this solution acid, base, or neutral?
- e) Is this solution strong or weak?