

## Review:

- Answer the following questions about acids.
  - List the properties of acids.
- What makes an acid strong or weak?
- How many strong acids are there? List them.
- What are the differences between Arrhenius acids and Bronsted-Lowry Acids?

May 17-11:02 AM

## Review:

- Answer the following questions about acids.
  - What is the difference between a polyprotic acid and a monoprotic acid?
  - What is the difference between a ternary acid and a binary acid?
  - Determine if the following acids are polyprotic or monoprotic and ternary or binary:
    - >  $\text{H}_3\text{PO}_4$  \_\_\_\_\_
    - >  $\text{HF}$  \_\_\_\_\_
    - >  $\text{C}_3\text{H}_7\text{COOH}$  \_\_\_\_\_

May 17-11:03 AM

## Review:

- Answer the following questions about bases.
  - List the properties of bases.
- What makes a base strong or weak?
- How many strong bases are there? List them.
- What are the differences between Arrhenius bases and Bronsted-Lowry bases?

May 17-11:04 AM

## Review:

- Answer the following questions about water.
  - What is  $K_w$ ? Include the name, equation, and value in your answer.
  - What is  $\text{H}_3\text{O}^+$  and why do we use it?
  - Define amphoteric.

May 17-11:04 AM

## Review:

- Answer the following questions about acid-base reactions.
  - What is a conjugate acid?
  - What is a conjugate base?
  - What do we call the type of reaction that occurs between acids and bases?

May 17-11:04 AM

## Review:

- Identify the acid, base, conjugate acid, and conjugate base in the following equations.
  - $\text{H}_2\text{O} + \text{HSO}_3^- \rightleftharpoons \text{OH}^- + \text{H}_2\text{SO}_3$
  - $\text{H}_2\text{O} + \text{HNO}_2 \rightleftharpoons \text{NO}_2^- + \text{H}_3\text{O}^+$
  - $\text{CH}_3\text{COOH} + \text{NH}_3 \rightleftharpoons \text{NH}_4^+ + \text{CH}_3\text{COO}^-$
  - $\text{OH}^- + \text{H}_3\text{PO}_4 \rightleftharpoons \text{H}_2\text{O} + \text{H}_2\text{PO}_4^-$

May 17-11:05 AM

## Review:

- A solution has an  $[H^+]$  of  $1.2 \times 10^{-5} M$ .
  - What is its pH?
  
- Is this solution acidic or basic? Explain your answer.

May 17-11:05 AM

## Review:

- An HI solution has a pH of 3.10.
  - Calculate the concentration of the hydrogen ion.
  
- Is this solution acidic or basic? Explain your answer.

May 17-11:05 AM

## Review:

- A solution has a pOH of 5.30.
  - What is the pH of the solution?
  
- Is this solution acidic or basic? How do you know?

May 17-11:06 AM

## Review:

- **A student performs the titration from the previous problem using 25.0 mL of HBr and 37.9 mL of 0.950 M  $Sr(OH)_2$ .**
  - Calculate the molarity of the HBr.
  
- What should be the pH of the equivalence point for this titration? How do you know?
  
- What is an appropriate indicator to use for this titration? Why?

May 17-11:06 AM

## Review:

- **A student performs a titration using a standardized solution of  $Sr(OH)_2$  to determine the concentration of HBr.**
  - What type of compound is HBr? How do you know?
  
- What type of compound is  $Sr(OH)_2$ ? How do you know?
  
- What type of reaction is this? What will the products be?
  
- Write the balanced equation for the reaction.

May 17-11:06 AM