

Unit 11 Review Quiz: Accel Chem

- Which of the following is a property of a base?
 - Sour taste
 - Reacts with metals
 - Turns red litmus paper blue**
 - $\text{pH} < 7$
- Which of the following is an example of an Arrhenius acid?
 - NH_3
 - H_3O^+
 - CH_3COOH
 - H_2SO_4**
- What products form in a neutralization reaction?
 - Salt and water**
 - Hydronium and water
 - Hydrogen ion and water
 - Impossible to predict
- Determine the Bronsted-Lowry base in the following process: $\text{NH}_3 + \text{H}_2\text{O} \rightleftharpoons \text{NH}_4^+ + \text{OH}^-$
 - NH_3**
 - H_2O
 - NH_4^+
 - OH^-
- Determine the conjugate acid in the following process: $\text{HF}(\text{aq}) + \text{HSO}_3^-(\text{aq}) \rightleftharpoons \text{F}^-(\text{aq}) + \text{H}_2\text{SO}_3(\text{aq})$
 - $\text{HF}(\text{aq})$
 - $\text{HSO}_3^-(\text{aq})$
 - $\text{F}^-(\text{aq})$
 - $\text{H}_2\text{SO}_3(\text{aq})$**
- Which of the following is NOT a monoprotic acid?
 - HNO_3
 - CH_3COOH
 - H_2S**
 - HCl
- Which of the following is a binary acid?
 - H_2S**
 - HNO_3
 - H_2SO_4
 - NaOH
- What is the pOH of a solution that has a pH of 8.2?
 - 6.3×10^{-9}
 - 5.8**
 - 0.91
 - 22.2
- What is the pH of 2.8×10^{-6} M HCl?
 - 5.6**
 - 1.0
 - 11.2
 - 2.8
- If it takes 54 mL of 0.1 M NaOH to neutralize 125 mL of an HCl solution, what is the concentration of the HCl?
 - 0.231 M
 - 0.0864 M
 - 4.32 M
 - 0.0432 M**
- How many milliliters of 0.360 M H_2SO_4 are required to neutralize 25.0 mL of 0.100 M $\text{Ba}(\text{OH})_2$?
 - 6.94 mL**
 - 144 mL
 - 69.4 mL
 - 1.44 mL
- What is the pH of a 6.5×10^{-10} M NaOH?
 - 1.0
 - 1.5×10^{-5}
 - 4.8**
 - 9.2
- What is the $[\text{H}^+]$ for a solution $[\text{OH}^-] = 1.6 \times 10^{-3}$?
 - 6.3×10^{-12} M**
 - 2.8 M
 - 11.2 M
 - 1.0×10^{-14} M
- What is the pOH of a solution with a $[\text{H}^+] = 6.5 \times 10^{-3}$?
 - 1.0
 - 1.5×10^{-12}
 - 2.2
 - 11.8**