**Dougherty Valley HS AP Chemistry**

**QUICK CHECK #3a**

**Acid Base Equilibrium Review**

**Name: Date: Period: Seat #:**

🞎 **pH’s are Logarithmic**

Solution A has a pH of 3. Solution B has a pH of 6. Which solution is more acidic? \_\_\_\_\_

How many times more acidic is the more acidic solution? \_\_\_

🞎 **ICE Box with a Twist**

A 0.10 M solution of HF has a pH of 2.10. Calculate the Ka of HF.

🞎 **Strengths of Acids**

Consider: HClO2, HBrO2, HIO2. Rank them from weakest to strongest.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Weakest |  |  |  | Strongest |

Consider: HBrO, HBrO2, HBrO3. Rank them from weakest to strongest.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Weakest |  |  |  | Strongest |

Consider: HCl, HBr, HI. Rank them from weakest to strongest.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Weakest |  |  |  | Strongest |

🞎 **Diprotic Acid Calculations**

Sulfurous acid, H2SO3, is a diprotic acid. Ka1 = 1.5 x 10-5; Ka2 = 1.0 x 10-7

What is the [SO32-] in a 0.150 M solution of H2SO3? \_\_\_\_\_\_\_\_\_\_\_

Calculate the pH of a 0.150 M solution of H2SO3. \_\_\_\_\_\_\_