ACID SOLUTIONS WORKSHEET

Name Answer hey
Date

What is the pH and pOH of a 1.2 x 10^{-3} M HBr solution? 1)

2)

Fill in the following table 3)

Solution	pH=5.5	pH=9.9	pH=6.6	pH=1	pH=7.4
рОН	14-55= 8.5		14-66=7.4	14-1= 13	14-74 = 6,6
[H +] = /o P +			2.5×10-7	0.1	4.0x10-8
[OH] - poH	3.2×10-9	7.9×10-5	4.0×10-8	1×10-13	2.5×10-7
Acidic	V		~	V	
Basic		V			/
Neutral			/		

What is the [H⁺] of a 2.3 pH solution? $H^{+2} 10^{-}P^{+} = 10^{-2.3} = (0.0050 \text{ M})$ 4) Is this acidic or basic? and c

If the pH increases is it becoming more acidic or alkaline?

What is the pH and pOH of a solution made by adding water to 15 grams of hydroiodic acid (H 1) 5) until the volume of the solution is 2500 mL?

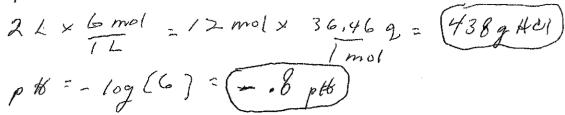
What is the pH and pOH of a solution that was made by adding 400 mL of water to 350 mL of
$$0.04 \times 10^{-8}$$
 M NaOH solution?

$$0.047 \text{ M} \text{ pH} = 1.3 \text{ pH} =$$

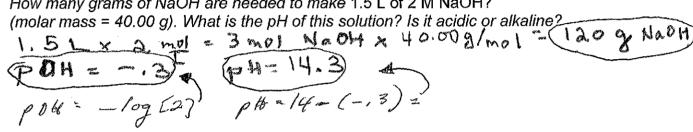
6)

Calculate the molar concentration and the pH of a 12 L solution that contains 1 mole of 7) hydrochloric acid. HCI

How many grams of HCl are needed to make 2 L of 6 M HCl? (molar mass = 36.46 g) What 8) is the pH of this solution?



How many grams of NaOH are needed to make 1.5 L of 2 M NaOH? 9)



10)

159 H21 ×
$$|mo| = \times$$
 9.41 mol 1421 } total mol H = 0.81 mol
259 H203 × $|mo| = \times$ 9.41 mol 1421 } $|mo| = 0.81 mol$
 $|mo| = \times 0.81 mol$ $|mo| = 0.40 mol |mo|$ $|mo| = 0.15 M$ $|mo| = 0.$

A swimming pool has a volume of one million liters. How many grams of HCl would need to 11) be added to that swimming pool to bring the pH down from 7 to 4? (Assume the volume of the HCI is negligible)