

AP Chemistry- Acid Base Podcast 9.3 Practice Problems; 3.B.2, 6.C.1, 6.C.2

Calculate the appropriate values for pH, pOH, hydronium ion and hydroxide ions in this table. You will need to use the “pH Equation Hand out” to help you solve these problems, which are also provided at the bottom of this sheet.

[H ⁺] (Mol/L)	[OH ⁻] (Mol/L)	pH	pOH	Acid, Base, or neutral
1.34×10^{-6}				
	2.54×10^{-10}			
		2.6		
			5.9	
2.76×10^{-1}				
	9.25 E -2			
		12.5		
			2.89	
3.45 E -7				
	2.75 E -6			
		5.55		
4.67 E -8				
	2.55×10^{-11}			
		14		
			1	
		7		

pH Equations (Acid Base); SC7b

$$\text{pH} = -\log [\text{H}^+]$$

$$\text{pOH} = -\log [\text{OH}^-]$$

$$[\text{H}^+] = 10^{-\text{pH}}$$

$$[\text{OH}^-] = 10^{-\text{pOH}}$$

$$[\text{H}^+] [\text{OH}^-] = 1.0 \times 10^{-14}$$

$$\text{pH} + \text{pOH} = 14$$