

pH—pOH—[H⁺]⁻—[OH⁻]

1. Calculate the values of both pH and pOH of the following solutions:

	pH	pOH
a. 0.020 M HCl		
b. 0.0050 M NaOH		
c. A blood sample 7.2 × 10 ⁻⁸ M of H ⁺		
d. 0.00035 M KOH		

2. Find the values of [H⁺], pOH, [OH⁻], that correspond to each of the following pH values:

	[H ⁺]	[OH ⁻]	pOH
a. pH of lemon juice = 2.90			
b. pH of sauerkraut = 3.85			
c. pH of milk of magnesia, a laxative = 10.81			
d. pH of most orange juices = 4.11			
e. pH of dilute household ammonia in windex = 11.61			

3. Determine which of the solutions in #2 are acidic?

4. A certain brand of rootbeer has a hydrogen concentration equal to 1.9 × 10⁻⁵M. What is the pH and pOH of this rootbeer?

5. Dr. Pepper has a [H⁺] = 1.4 × 10⁻⁵M. What is its pH?

6. Fill in the following table:

[H ⁺]	[OH ⁻]	pH	pOH	ACID BASE NEUTRAL
1 X 10 ⁻³				
	1 X 10 ⁻⁶			
		9		
			12	
				NEUTRAL
			9.5	
		4.7		
	2.0 X 10 ⁻³			
5.0 X 10 ⁻¹¹				
		4.35		

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