

CHEM 101-080 Fall 2004
Problem-Solving Session 6
Chapters 12 and 13
November 22, 2004

Ch. 12: Acids, Bases, and Salts

Group	Problem No. p. 382	Solution
1	7 (a-c)	
2	7 (d-f)	
3	8 (a-c)	
4	8 (d-f)	

Group	Problem No. p. 382	Solution
1	9 (a,b)	
2	9 (c,d)	
3	10 (a,b)	
4	10 (c,d)	

Group	Problem No.	Solution
1	14	
2	14	
3	113	
4	113	

Group	What is the $[H^+]$ and pH in a 0.060 M solution of the following acids? Assume the second ionization (if it exists) is only 50% complete.	Solution
1	HCl	
2	HNO ₃	
3	H ₂ SO ₄	
4	H ₃ PO ₄	

Group	What is the pH that corresponds to each concentration?	Solution
All	$[H^+] = 0.55 \text{ M}$	
	$[OH^-] = 0.55 \text{ M}$	
	$[H^+] = 0.0001 \text{ M}$	
	$[H^+] = 10^{-4} \text{ M}$	
	$[OH^-] = 10^{-8} \text{ M}$	
	$[OH^-] = 0.00146 \text{ M}$	

Group	Problem No. p. 383	Solution
1	24	
2	25	
3	28	
4	29	

Group	Problem No. p. 383	Solution
1	34a	
2	34b	
3	34c	
4	34c	

Group	Problem No. p. 384	Solution
1	74a,b	
2	74c,d	
3	74e,f	
4	74g,h	

Group	Problem No. p. 385	Solution
1	82a	
2	82b	
3	82c	
4	82d	

Group	Problem No. p. 385	Solution
1	93	
2		
3	95	
4		

Group	Problem No. p. 385	Solution
All	116	

Ch. 13: Oxidation-Reduction Reactions

Group	Problem No. p. 416	Solution
1	18a	
2	18b	
3	18c	
4	18d	

Group	Problem No. p. 416	Solution
1	19a	
2	19b	
3	19c	
4	19d	

Group	Problem No. p. 416	Solution
1	21a	
2	21a	
3	21b	
4	21b	

Group	Problem No. p. 416	Solution
1	25a	
2	25a	
3	25c	
4	25c	