Chapter 2 Assignments - Functions

HW NO.	ASSIGNMENT	DUE	√
LATE AND ABSENT HOMEWORK IS ACCEPTED UP TO THE TIME OF THE CHAPTER TEST		
2-1	Pg. 155 #7, 9, 13, 25, 31, 35, 37, 41, 43, 47, 50, 51, 53, 57, 59, 61, 64, 65, 68, 77, 81, 85, 88 Prac A: 11, 12, 23		
2-2	Pg. 167 #7, 11, 15, 19, 20, 21, 23, 35, 45, 50, 51, 53, 56, 57, 61, 67, 81 Prac A: 13, 14, 15, 16, 17, 18, 21, 22		
2-4	Pg. 187 #2, 7, 9, 15, 19, 21, 25, 27, 29, 31, 36 Prac G: 1, 3, 5, 6, 7, 8, 9, 11		
2-5	Pg. 195 #9, 11, 21, 27, 32, 33, 35, 41, 43, 45, 47, 49 Prac G: 14, 16, 17, 19, 21, 22, 26		
2-6A	Pg. 206 #13, 14, 15, 17, 39, 41, 47, 51 Prac C: 5, 6 Prac D: 27-35, 50, 51, 52, 53, 55, 56, 57, 60, 61, 62, 63, 64, 65, 66		
2-6B	Pg. 207 #59, 61, 63, 65, 66, 67, 69, 71, 73, 75, 83, 85, 87, 89, 92, 94, 95, 97, 99, 100, 101, 104 Prac C: 15, 16, 27, 28 Prac E: 11-14, 15, 16		
2-7	Pg. 216 #1, 15, 18, 29, 31, 33, 35, 37, 39, 41, 43, 52, 57, 59, 63, 65, 69, 73, 74, 77, 81 Prac A: 25, 26 Prac B: 3, 23, 24, 25, 26, 29, 32, 33, 34		
2-8	Pg. 225 #15, 17, 18, 22, 24, 31, 33, 35, 39, 51, 57, 71, 73, 85, 89, 93, 95, 102, 105a Prac C: 9 Prac F: 1, 15, 16, 17,19		
2-RA	Pg. 231 (Chapter Review) #1, 3, 7, 11, 12, 13, 19, 21, 27, 30, 31, 33, 35, 38, 39, 41, c45, 51, 55, 63, 67, 71, 72, 73, 74, 83, 84cd, 86, 87, 88, 89, 91, 95, 97, 99, 101		
2-RB	Pg. 235 (Chapter Test) #1, 2, 3ade, 4, 6-21		
## Chapter 2 Test on _____		

Homework 2-1

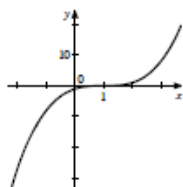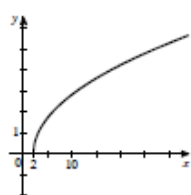|		
50. $3a^2 + 3ah + h^2$	64. $(-\infty, -2] \cup [2, \infty)$	68. $(-\infty, -2] \cup [4, \infty)$
88. $$F(x) = \begin{cases} 15(40-x) & \text{if } 0 < x < 40 \\ 0 & \text{if } 40 \le x \le 65 \\ 15(x-65) & \text{if } x > 65 \end{cases}$$	88b. $F(30) = \$150;\ F(50) = 0;$ $F(75) = \$150$	88c. Fines for speeding ticket

Homework 2-2

16.	20.	50.	56. Function
		$$f(x) = \begin{cases} 1 & \text{if } x \le -1 \\ -x+1 & \text{if } -1 < x \le 2 \\ -2 & \text{if } x > 2 \end{cases}$$	$D: [-3, 2]$ $R: [-2] \cup (0, 3]$

Homework 2-4

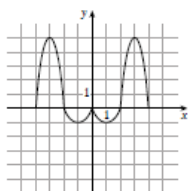|		
36ai. Betweeen 1860 and 1890, average 84 farms per year	36aii. Between 1950 and 1970, average 138 farms per year	36b. between 1950 to 1960

Homework 2-5

32a. rate: -3	32b. $f(x) = -3x + 2$	

Homework 2-6

66. $g(x) = 2|x|$	

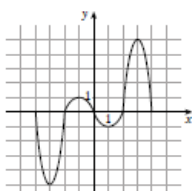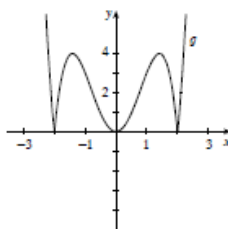| 92a.	92b.	94.	100.
Even	Odd		$g(x) = f(x-4) + 5$
			104. even when n is even; odd when n is odd

Homework 2-7

18. $[-4, 0) \cup (0, 1]$	52. $(f \circ g)(x) = x - 3$ D: $[3, \infty)$ $(g \circ f)(x) = \sqrt{x^2 - 3}$ D: $(-\infty, -3] \cup [3, \infty)$ $(f \circ f)(x) = x^4$ D: $(-\infty, \infty)$ $(g \circ g)(x) = \sqrt{\sqrt{x-3}}$ D: $[3, \infty)$	74. $f(x) = x^2 + 6$ $g(x) = x^2 + x - 1$

Homework 2-8

18. one-to-one	22. not one-to-one	24. one-to-one	

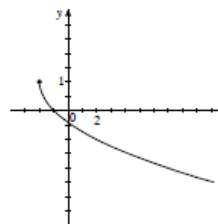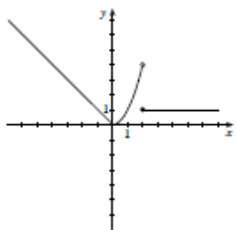| Homework 2-RA		

12a. $f(-2)=-1; f(2)=2$
    net change $=3$
 	
12b.
    avg rate $=\dfrac{3}{4}$
 	
12c. D: $[-4,5]$ R: $[-4,4]$
	12d. increasing $[-4,-2]$ and $[-1,4]$
	Decreasing $[-2,-1]$ and $[4,5]$
	12e. -1 and 4
	12f. not one-to-one
		30.

38. 	74a. odd 74b. neither 74c. even 74d. neither 84c. 2 84d. 26 88. $h(x)=\sqrt{x};\ g(x)=\sqrt{1+x};$ $f(x)=\dfrac{1}{x}$	86. $(f\circ g)(x)=\sqrt{\dfrac{2}{x-4}}$ D: $[4,\infty)$ $(g\circ f)(x)=\dfrac{2}{\sqrt{x}-4}$ D: $[0,16)\cup(16,\infty)$ $(f\circ f)(x)=\sqrt{\sqrt{x}}$ D: $[0,\infty)$ $(g\circ g)(x)=\dfrac{2}{\frac{2}{x-4}-4}=\dfrac{x-4}{9-2x}$ D: $(-\infty,4)\cup(4,\tfrac{9}{2})\cup(\tfrac{9}{2},\infty)$