## CSC 3501 Computer Organization and Design Solution of Homework #3

Chapter 3. Exercises 36.

To get 4096 bytes of memory, one would need 16 256x8 RAM chips (256x16=4096).

- a. 8
- b. 8
- c. 4, which implies a 4-to-16 decoder.
- 3.A Exercises (page 174)

1.

\YZ	-			
X /	00	01	11	10
0	1	1	1	0
1	1	1	1	1

c. 
$$x + y' + z$$

2.

b.	x'y'z' + x'yz' + xy'z'	+ xyz'
	Simplifies to:	
	2	

\Υ	Z			
X /	00	01	11	10
0	1	0	0	/ 1
1	1 /	0	0	1
****	***************************************			***************************************

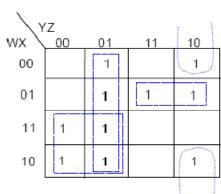
c. 
$$y'z' + y'z + xyz'$$

Simplifies to: y' + xz'

XX	00	01	11	10
0	1	1	0	0
1	1	1	0	(1
	and the same of			

3.

c.



Ans. wy' + y'z + w'xy + x'yz'

4.

\ \	Z/				
wx \	00	01	11	10	
00	1	1			
01					
11					
10	$\overline{1}$	1		1	
	1				

∖ YZ						
wx \	00	01	11	10		
0.0		1		1		
01		1	1	1		
11	1	1				
10	1	1		1		

6. (b)

$$\chi'z' + w'z$$

