

CSCI 2150 – Karnaugh Map Homework

Name: _____

1. Complete the truth table to the right with the values for the sum-of-products expression $A \cdot \bar{B} \cdot C + A \cdot \bar{C}$.

A	B	C	X
0	0	0	
0	0	1	
0	1	0	
0	1	1	
1	0	0	
1	0	1	
1	1	0	
1	1	1	

2. Create a Karnaugh map from the truth table below and draw the appropriate rectangles.

A	B	C	X
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	0
1	0	0	X
1	0	1	0
1	1	0	1
1	1	1	1

3. Derive the minimum SOP expression from the Karnaugh map below. Be sure to show all steps.

	<i>CD</i>			
	00	01	11	10
<i>AB</i>				
00	0	0	1	1
01	1	0	0	0
11	1	0	0	0
10	1	1	1	1