

				(G)	(E)	(L)
A_1	A_0	B_1	B_0	$A > B$	$A = B$	$A < B$
0	0	0	0	0	1	0
0	0	0	1	0	0	1
0	0	1	0	0	0	1
0	0	1	1	0	0	1
0	1	0	0	1	0	0
0	1	0	1	0	1	0
0	1	1	0	0	0	1
0	1	1	1	0	0	1
1	0	0	0	1	0	0
1	0	0	1	1	0	0
1	0	1	0	0	1	0
1	0	1	1	0	0	1
1	1	0	0	1	0	0
1	1	0	1	1	0	0
1	1	1	0	1	0	0
1	1	1	1	0	1	0

k-map for $A < B$: (L)

$A_1 A_0 \backslash B_1 B_0$	00	01	11	10
00		1	1	1
01			1	1
11				
10			1	

Minimal SOP: $\bar{A}_1 \bar{A}_0 B_0 + \bar{A}_1 B_1 + \bar{A}_0 B_1 B_0$ k-map for $A = B$: (E)

$A_1 A_0 \backslash B_1 B_0$	00	01	11	10
00	1			
01		1		
11			1	
10				1

Minimal SOP: $\bar{A}_1 \bar{A}_0 \bar{B}_1 \bar{B}_0 + \bar{A}_1 A_0 \bar{B}_1 B_0 + A_1 A_0 B_1 B_0 + A_1 \bar{A}_0 B_1 \bar{B}_0$ k-map for $A > B$: (G)

$A_1 A_0 \backslash B_1 B_0$	00	01	11	10
00				
01	1			
11	1	1		1
10	1	1		

Minimal SOP: $A_0 \bar{B}_1 \bar{B}_0 + A_1 A_0 \bar{B}_0 + A_1 \bar{B}_1$