

1.) Truth Table

W	X	Y	Z	F1	F2
0	0	0	0	1	1
0	0	0	1	0	1
0	0	1	0	1	0
0	0	1	1	0	0
0	1	0	0	0	0
0	1	0	1	0	0
0	1	1	0	0	0
0	1	1	1	0	0
1	0	0	0	X	X
1	0	0	1	X	X
1	0	1	0	X	X
1	0	1	1	X	X
1	1	0	0	X	X
1	1	0	1	X	X
1	1	1	0	X	X
1	1	1	1	X	X

2.) Karnaugh Map

Map of F1:

YZ \ WX	00	01	11	10
00	1	0	0	1
01	0	0	0	0
11	X	X	X	X
10	X	X	X	X

$$F1 = X'Z'$$

Map of F2:

YZ WX	00	01	11	10
00	1	1	0	0
01	0	0	0	0
11	X	X	X	X
10	X	X	X	X

$$F2 = X'Y'$$