

HW #1

1.2

X	Y	B _{in}	Diff	B _{out}
0	0	0	0	0
0	0	1	1	1
0	1	0	1	1
0	1	1	0	1
1	0	0	1	0
1	0	1	0	0
1	1	0	0	0
1	1	1	1	1

$$XY'B_{in} + X'Y'B_{in} + XYB_{in} + X'YB_{in}'$$

$$B_{out} = X'B_{in} + XY + YB_{in}$$

$$(X+Y+B_{in})(X+Y'+B_{in})(X'+Y+B_{in})(X'+Y'+B_{in})$$

$$B_{out} = (Y+B_{in})(X+B_{in})(X'+Y)$$

1.3

AB	00	01	11	10
00	0	X	S	0
01	X	E	E	X
11	1	0	F'	1
10	0	0	F'	0

$$S = G + H'$$

$$MS_0 = B'D$$

$$MS_1 = C'D(E), MS_2 = AB'(P'), MS_3 = B'C'D(G+H)$$

$$Z = B'D + C'DE + AB'(F' + B'C'DG + B'C'DH)$$

1.4 a) $F = A'D + A'D + B'D + A'B'C'E + B'D'E$