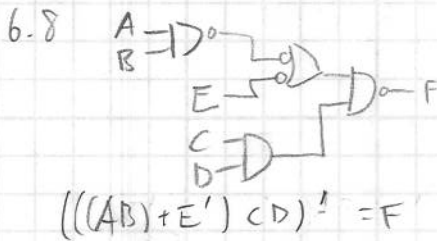


$$(A+B'E + C'D')$$



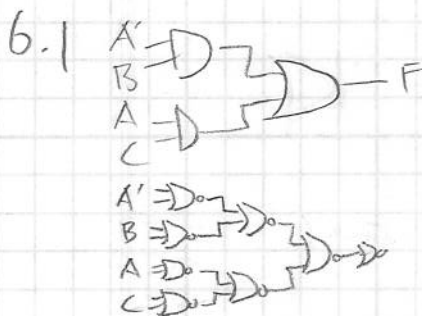
$$(((AB) + E')CD)' = F$$

6.9

$$(((AB) + E')CD)'$$

$$= ((AB) + E')' + (CD)'$$

$$= (A+B'E + C'D)'$$



7.1 Consensus theorem

$$ac + a'b + bc = ac + a'b$$

a	b	c	ac	a'b	bc	f
0	0	0	0	0	0	0
0	0	1	0	0	0	0
0	1	0	0	1	0	1
0	1	1	0	1	1	1
1	0	0	0	0	0	0
1	0	1	1	0	0	1
1	1	0	0	0	0	0
1	1	1	1	0	1	1

BC \ A	0	1
00	0	0
01	0	1
11	1	1
10	1	0

$AC + A'B$

← This is the extra third term

7.2

CD \ AB	00	01	11	10
00	0	1	0	1
01	1	0	1	0
11	0	1	0	1
10	1	0	1	0

The 1's can't be grouped

7.4

CD \ AB	00	01	11	10
00	0	0	0	1
01	0	1	1	0
11	0	1	1	0
10	1	0	0	1

$BD + B'D' = B \oplus D$

7.5

CD \ AB	00	01	11	10
00	1	0	0	1
01	0	1	1	0
11	0	1	1	0
10	1	0	0	1

$$F = BD' + B'D$$

$$F = (B'D + BD')$$

7.6

CD \ AB	00	01	11	10
00	1	1	0	1
01	1	1	1	1
11	1	1	1	1
10	1	1	0	0

$$A' + D + AB'C'$$

$$= A' + D + B'C'$$

7.7

CD \ AB	00	01	11	10
00	1	1	0	1
01	1	1	1	1
11	1	1	1	1
10	1	1	0	0

$$F' = ACD' + ABD'$$

$$F = (A' + C' + D)(A' + B' + D)$$

7.8

CD \ AB	00	01	11	10
00	1	1	0	1
01	1	1	1	1
11	1	1	1	1
10	1	1	0	0

CD \ AB	00	01	11	10
00	1	X	0	0
01	1	1	1	X
11	0	1	X	0
10	X	1	X	1

CD \ AB	00	01	11	10
00	1	X	0	0
01	1	1	1	X
11	0	1	X	0
10	X	1	X	1

Prime Implicants:  $A'D' + A'C' + C'D + AB + BD + BC + CD'$ Essential:  $CD'$ 

7.9

$$CD' + A'C' + BD + CD'$$

7.11

A \ B	0	1
0	1	1
1	X	1

Always TRUE

$$F = 1$$