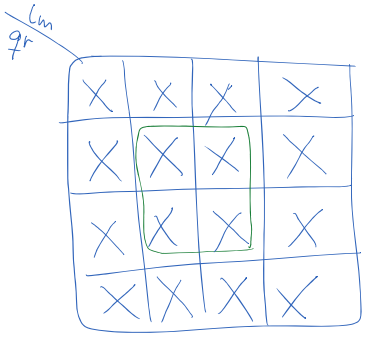


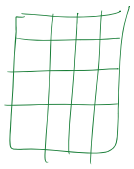
F = ~~alt~~

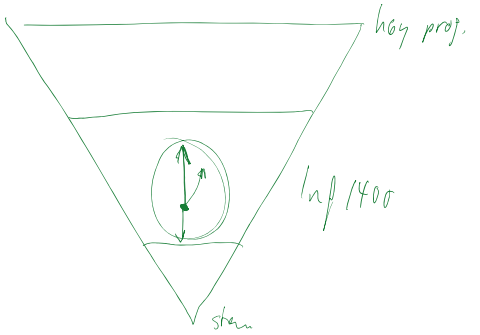
0

don't care X

1

- Forenkling av uttrykk
- Komm. mellom tallsystemer.
- Logiske port OR NOT XNOR NOR
  AND XOR NAND
- K-map
- Boolsk algebra.
- Sannhetstabell.
- DeMorgans teorem.





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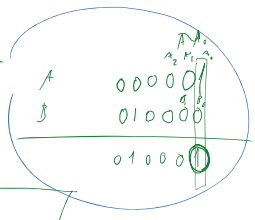
13 + 08 = 21

↓

1101 + 1000 =

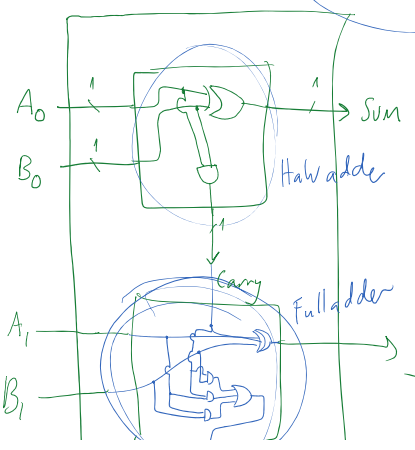
① 01101 + 01000 = 10101

16 + 1 = 17



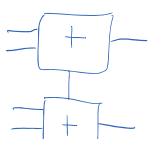
OR

A_n	B_{n-1}	
0	0	0
0	1	1
1	0	1
1	1	1

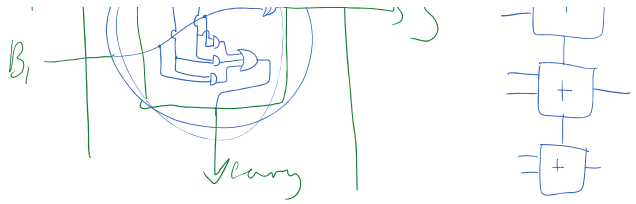


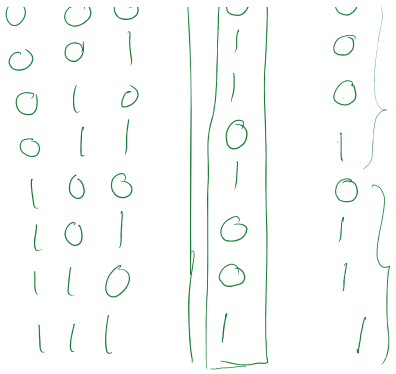
$a_n \oplus b_n$

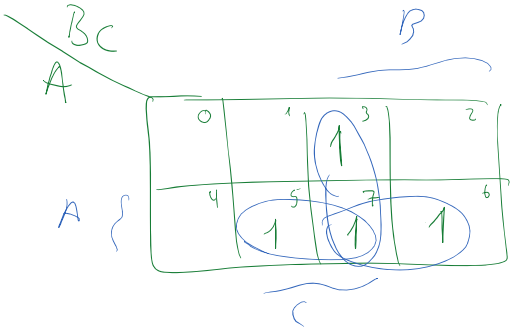
$a_n b_n$



A_n	B_n	C_{n-1}	S_n	C_n
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0

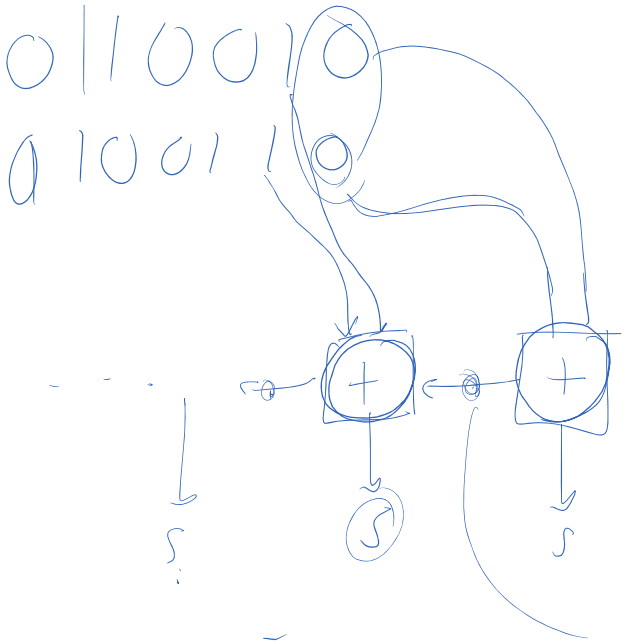




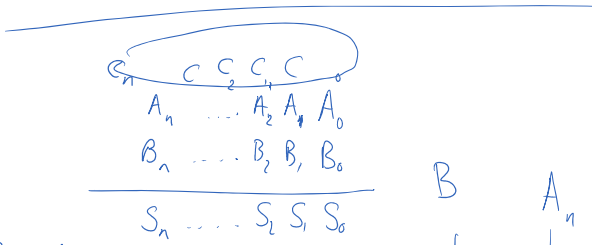


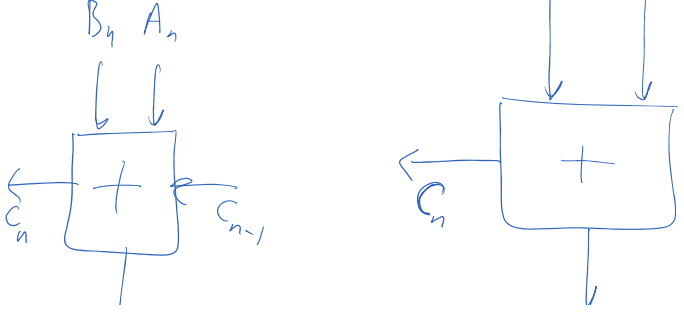
$a \oplus b \oplus c$

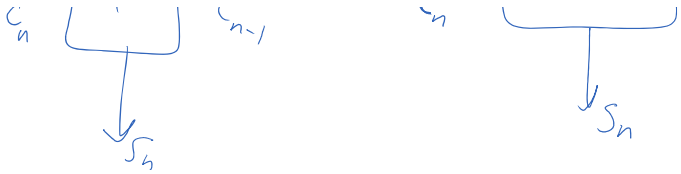
$AC + AB + BC$



64 . . . . . .





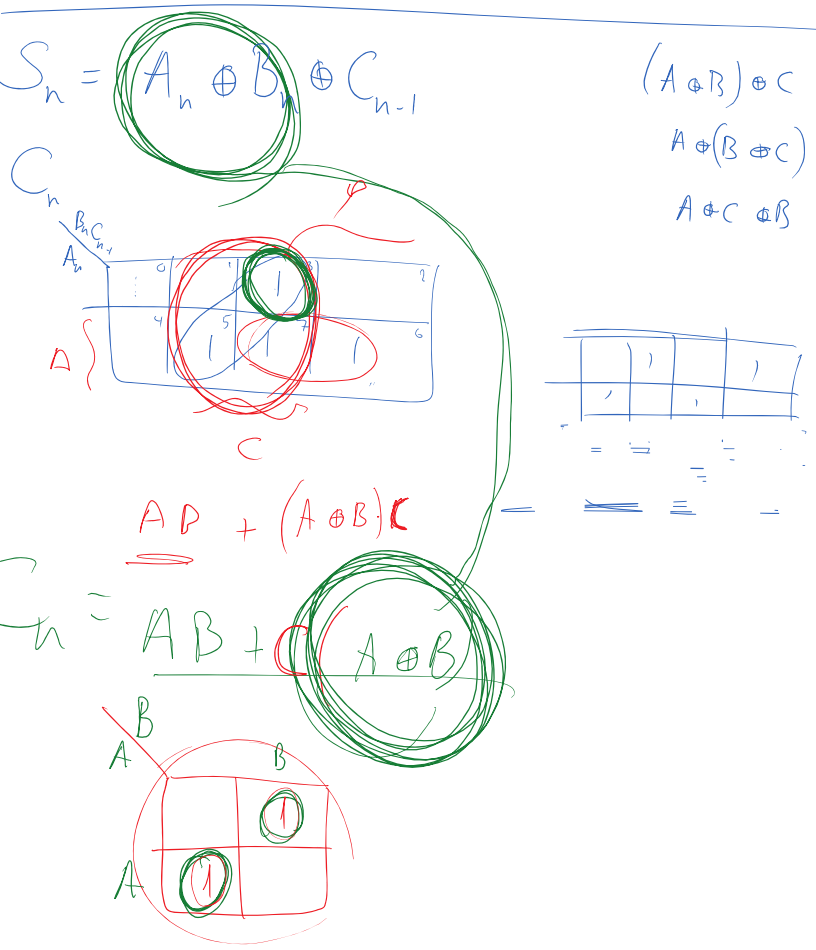


$S_n = A_n \oplus B_n \oplus C_{n-1}$

$(A \oplus B) \oplus C$

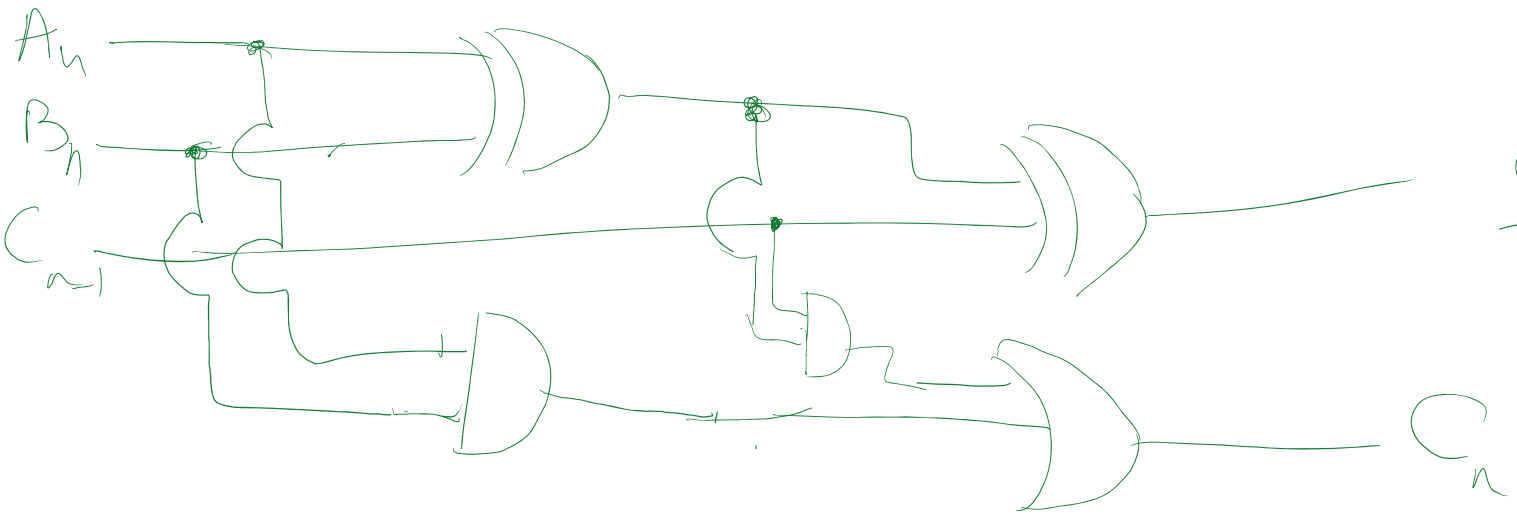
$A \oplus (B \oplus C)$

$A \oplus C \oplus B$



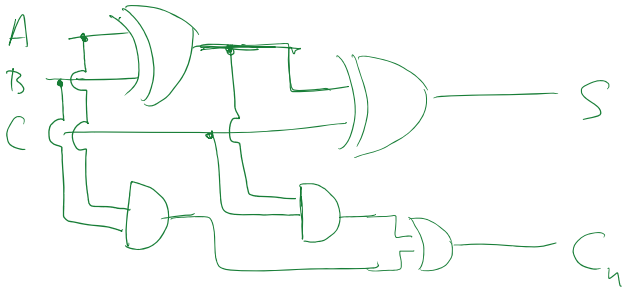
$AB + (A \oplus B)C$

$C_n = AB + C(A \oplus B)$



$S = (A \oplus B) \oplus C$

$C_n = AB + C_{n-1}\overline{(A \oplus B)}$



$$13 - 8 = 13 + (-8)$$

2's komplement

MSB LSB

1 1 1 1

-2^3 2^2 2^1 2^0

$-8 + 4 + 2 + 1 = -1$

$\langle -8, 7 \rangle$

1 0 0 0 $\Rightarrow -8$

0 0 0 1 $\Rightarrow 1$

0 0 1 0 $\Rightarrow 2$

10011

$-16 + 2 + 1 = -13$

$(13)_{10} \Rightarrow (01101)_2$

10010

+ 00001

10011

$(008)_{10}$

$(0\,0\,0\,0\,0\,0\,0\,1\,0\,1\,1)_2$

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① $13 - 5 \Rightarrow 13 + (-5)$

	1	1	1	1		
(13)	0	0	1	1	0	1
+ (−5)	1	1	1	0	1	1
	0	0	0	1	0	0

$0\,0\,0\,0\,1\,0\,0$

0101
1010
$+\,0001$
1011