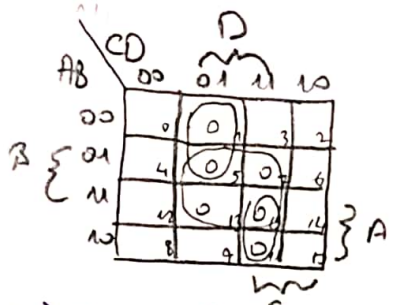
ÖDEV 3

Yiğit Behlül Güney
040180063

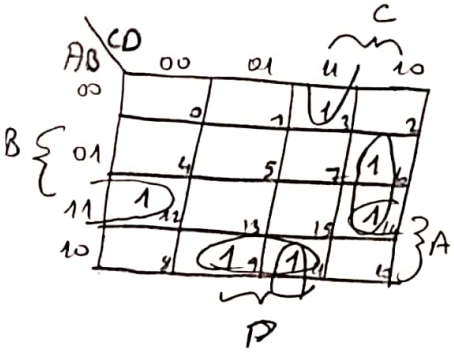
1-)

a-) $F(A,B,C,D) = \Pi(1,5,7,11,13,15)$



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

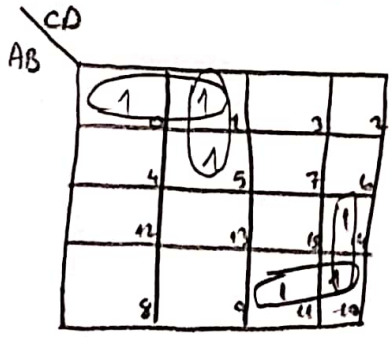
b-) $F(A,B,C,D) = \sum(3,6,9,11,12,16)$



$F = AB\bar{D} + \bar{B}CD + A\bar{B}\bar{D} + BC\bar{D}$

2-) $F = \underbrace{\bar{A}BC\bar{D} + A\bar{B}CD + A\bar{B}\bar{C} + AC\bar{D}}_{\text{Çarpımların toplamı (Minterm)}} \Rightarrow F = \sum(0,1,5,10,11,14)$

*) Karnaugh



$F = \bar{A}C\bar{D} + A\bar{B}\bar{C} + A\bar{B}C + AC\bar{D}$

$F = \bar{A}C'(B'+D) + AC(B'+D') \rightarrow$ 8 literal

*) Quine McCluskey

	Sütun 1
✓0	0 0 0 0
✓1	0 0 0 1
✓5	0 1 0 1
✓10	1 0 1 0
✓11	1 0 1 1
✓14	1 1 1 0

	Sütun 2
(0,1)	0 0 0 –
(1,5)	0 – 0 1
(10,11)	1 0 1 –
(10,14)	1 – 1 0

$F = A\bar{B}\bar{C} + \bar{A}C\bar{D} + A\bar{B}C + AC\bar{D}$

$F = \bar{A}C'(B'+D) + AC(B'+D') \rightarrow$ 8 literal

*) Boolean sadeleştirme

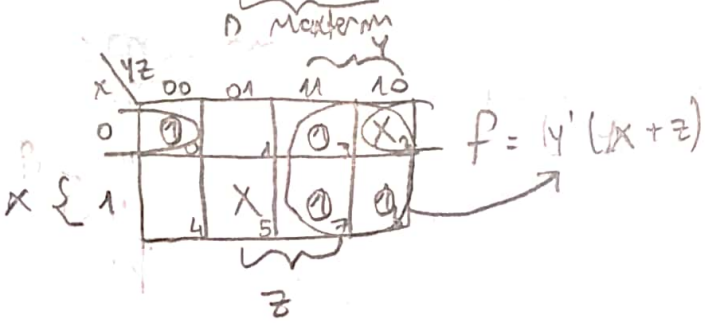
$F = \bar{A}C'(BD+B') + AC(B'D+D') = \bar{A}C'(D+B') + AC(B'+D') \rightarrow$ 8 literal

Yiğit Bektaş Güney
040180063

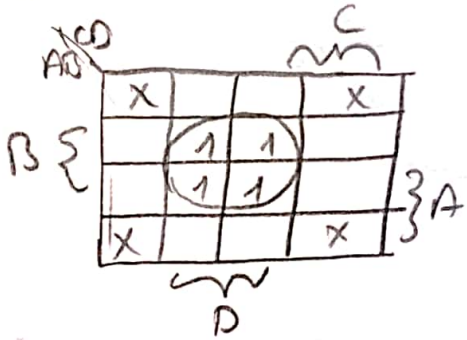
3-)

a) $F(x,y,z) = \Pi(0,3,6,7) + d\Sigma(2,5)$

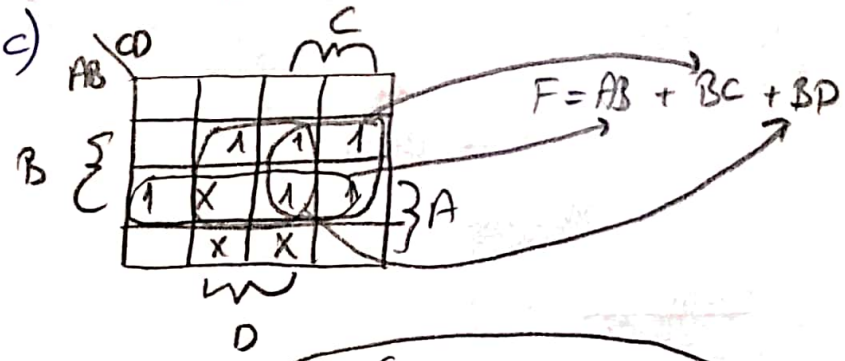
D Maxterm



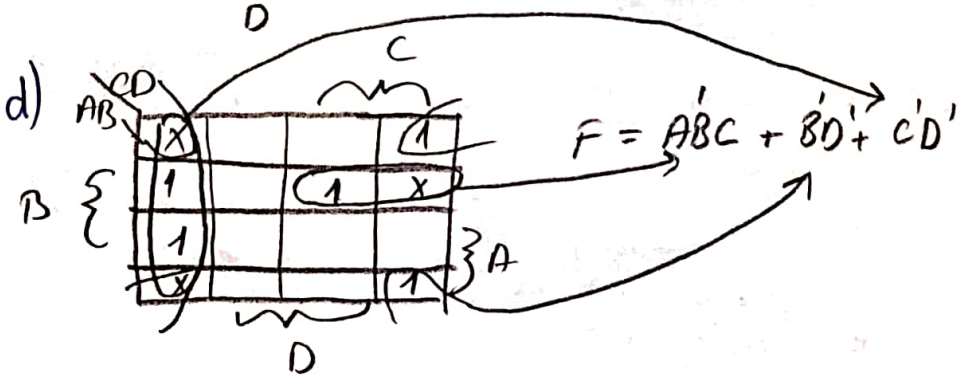
b) $F(A,B,C,D) = \Sigma(5,7,13,15) + d\Sigma(0,2,8,10)$



c)



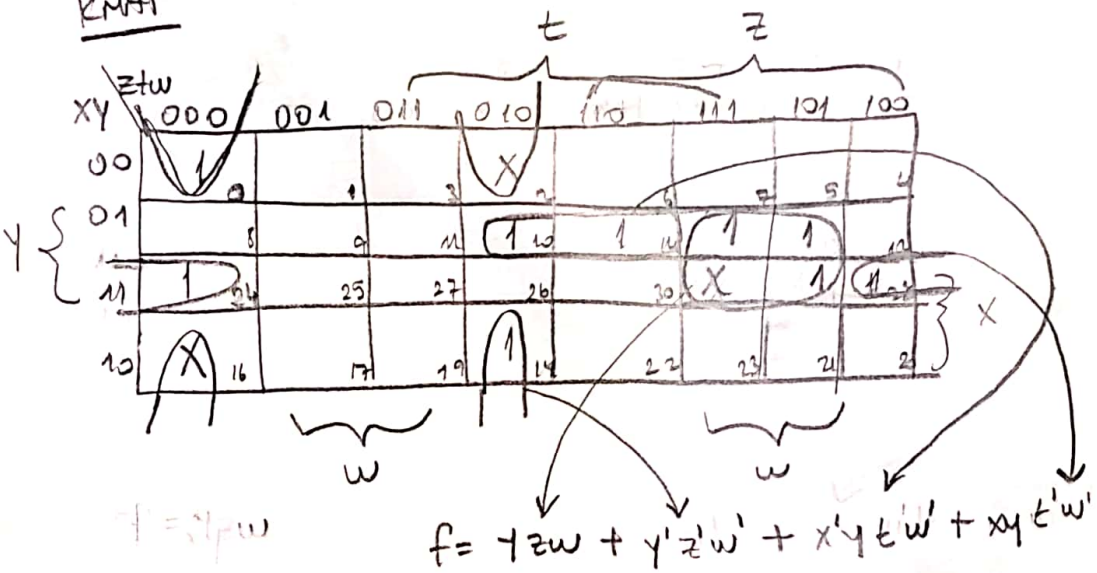
d)



Part 2 -) $f(x,y,z,t,w) = \Sigma\, 0,10,13,14,15,18,24,28,29 + d\Sigma\, 2,16,31$

Yiğit Bektaş Güney
040150081

KNAP



$f = yzw + y'z'w' + x'yt'w' + xyt'w'$