

# DSA1Uebung-003 -- Karnaugh-Veitch Method

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a ) - Create Truth Tables

b ) - Optimize the Boolean expression using the Karnaugh-Veitch method

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1 ) [ 3 Variables ]

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A	B	C	P(A,B,C)
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0

	AB	A¬B	¬A¬B	¬AB
C	0	0	0	1
¬C	0	0	1	1

$$P(A,B,C) \equiv \neg A \neg C \vee \neg AB$$


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## 2 ) [ 4 Variables ]

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A	B	C	D	P(A,B,C,D)
1	0	0	0	1
0	1	1	1	0
1	1	0	1	1
0	1	0	1	1
1	1	0	0	1
1	0	1	0	0
1	0	0	1	1

AB	A¬B	¬A¬B	¬AB
CD	0	0	0
C¬D	0	0	0
¬C¬D	1	1	0
¬CD	1	1	0

$$P(A,B,C,D) \equiv A\neg C \vee \neg CD$$


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