








Vereinfachungstabelle nach Quine-McCluskey

Beispiel 2:

Die mit dem gelben Kreuz  markierten Minterme sind Redundanzen!

Positive Variable	Minterme		Vereinfachungen					
			1.		2.		3.	
1	$\bar{A}\bar{B}\bar{C}\bar{D}\bar{E}$	v	$\bar{A}\bar{B}\bar{C}\bar{D}$	P_1	$AC\bar{E}$	v	AC	P_5
2	$\bar{A}\bar{B}\bar{C}\bar{D}E$	v	$\bar{A}\bar{C}\bar{D}\bar{E}$	v	$AC\bar{D}$	v		
	$\bar{A}\bar{B}\bar{C}DE$	v	$\bar{A}\bar{B}\bar{C}E$	v	$\bar{A}\bar{B}C$	v		
	 $\bar{A}\bar{B}\bar{C}\bar{D}E$	v	$\bar{A}\bar{B}\bar{C}\bar{D}$	v	ABC	v		
3	$\bar{A}BC\bar{D}\bar{E}$	v	$\bar{A}\bar{C}DE$	P_2	ACD	v		
	$\bar{A}\bar{B}\bar{C}\bar{D}\bar{E}$	v	$\bar{A}\bar{B}\bar{C}E$	P_3	ACE	v		
	$\bar{A}\bar{B}\bar{C}DE$	v	$\bar{A}BC\bar{E}$	v	BDE	P_4		
	$\bar{A}\bar{B}\bar{C}DE$	v	$\bar{A}BC\bar{D}$	v				
4	 $\bar{A}BC\bar{D}\bar{E}$	v	$\bar{A}C\bar{D}\bar{E}$	v				
	 $\bar{A}BC\bar{D}E$	v	$\bar{A}\bar{B}\bar{C}\bar{D}$	v				
	 $\bar{A}\bar{B}\bar{C}DE$	v	$\bar{A}C\bar{D}E$	v				
	 $\bar{A}\bar{B}\bar{C}DE$	v	$\bar{A}\bar{B}CE$	v				
	 $\bar{A}\bar{B}CDE$	v	$\bar{B}\bar{C}DE$	v				
5	$\bar{A}BCDE$	v	$\bar{A}\bar{B}DE$	v				
			ABCD	v				
			ABCE	v				
			ABDE	v				
			ACDE	v				
			BCDE	v				

v bedeutet "abgehakt"

Primterm-Minterm-Table nach Quine-McCluskey

Drei mögliche Lösungen:

a) $Z = P1 \vee P5 \vee P2$

b) $Z = P1 \vee P5 \vee P3$

c) $Z = P1 \vee P5 \vee P4$

Minterme	Primterme				
	P ₁ $\bar{A}\bar{B}\bar{C}D$	P ₂ $\bar{A}\bar{C}DE$	P ₃ $\bar{A}B\bar{C}E$	P ₄ BDE	P ₅ AC
$\bar{A}\bar{B}\bar{C}\bar{D}\bar{E}$					x
$ABC\bar{D}\bar{E}$					x
$\bar{A}\bar{B}\bar{C}D\bar{E}$	x				
$\bar{A}\bar{B}C\bar{D}\bar{E}$					x
$\bar{A}\bar{B}C\bar{D}E$					x
$\bar{A}\bar{B}\bar{C}DE$	x	x			
$\bar{A}B\bar{C}DE$		x	x	x	
$ABCDE$				x	x

da P₄ kürzer als P₂ oder P₃ ist Minimalform: $Z = \bar{A}\bar{B}\bar{C}D \vee BDE \vee AC$