

Truth Table

A	B	C	D	Y
0	0	0	0	1
0	0	0	1	1
0	0	1	0	0
0	0	1	1	0
0	1	0	0	1
0	1	0	1	1
0	1	1	0	0
0	1	1	1	0
1	0	0	0	1
1	0	0	1	1
1	0	1	0	0
1	0	1	1	0
1	1	0	0	1
1	1	0	1	1
1	1	1	0	0
1	1	1	1	0

	$\overline{C}\overline{D}$	$\overline{C}D$	CD	$C\overline{D}$
$\overline{A}\overline{B}$	1	1		
$\overline{A}B$	1	1		
AB	1	1		
$A\overline{B}$	1	1		

Sum – of – products K – map

	$\overline{C} + \overline{D}$	$\overline{C} + D$	$C + D$	$C + \overline{D}$
$\overline{A} + \overline{B}$	1	1		
$\overline{A} + B$	1	1		
$A + B$	1	1		
$A + \overline{B}$	1	1		

Products – of – sums K – map