Tabelas da Verdade Obtidas de Expressões Booleanas

S = $\overline{A} + B + A.\overline{B}.\overline{C}$

A	B	C	$\overline{A}$	$A.\overline{B}.\overline{C}$	S
0	0	0	1	0	1
0	0	1	1	0	1
0	1	0	1	0	1
0	1	1	1	0	1
1	0	0	0	1	1
1	0	1	0	0	0
1	1	0	0	0	1
1	1	1	0	0	1

Prove as identidades

a) $\overline{A}.\overline{B} \neq \overline{A.B}$

b) $\overline{A} + \overline{B} \neq \overline{A + B}$

c) $\overline{A}.\overline{B} = \overline{A + B}$

d) $\overline{A} + \overline{B} = \overline{A.B}$

A	B	$\overline{A}.\overline{B}$	$\overline{A.B}$	$\overline{A} + \overline{B}$	$\overline{A + B}$
0	0	1	1	1	1
0	1	0	1	1	0
1	0	0	1	1	0
1	1	0	0	0	0

Lembrete:

AND (E)				OR (OU)		
A	B	S		A	B	S
0	0	0		0	0	0
0	1	0		0	1	1
1	0	0		1	0	1
1	1	1		1	1	1

Tabelas da Verdade Obtidas de Expressões Booleanas

S = (A+B).($\overline{B.C}$)

A	B	C	A+B	$\overline{B.C}$	S
0	0	0	0	1	0
0	0	1	0	1	0
0	1	0	1	1	1
0	1	1	1	0	0
1	0	0	1	1	1
1	0	1	1	1	1
1	1	0	1	1	1
1	1	1	1	0	0

Expressões Booleanas Obtidas de Tabelas da Verdade

A	B	S
0	0	1
0	1	0
1	0	1
1	1	1

$\overline{A}$=1 e $\overline{B}$=1 → $\overline{A}.\overline{B}$

A = 1 e $\overline{B}$=1 → A.$\overline{B}$

A = 1 e B=1 → A.B

S = $\overline{A}.\overline{B}$ + A.$\overline{B}$ + A.B

A	B	C	S	
0	0	0	1	$\overline{A}.\overline{B}.\overline{C}$
0	0	1	0	
0	1	0	1	$\overline{A}.B.\overline{C}$
0	1	1	0	
1	0	0	0	
1	0	1	0	
1	1	0	1	$A.B.\overline{C}$
1	1	1	1	A.B.C

S = $\overline{A}.\overline{B}.\overline{C}$ + $\overline{A}.B.\overline{C}$ + $A.B.\overline{C}$ + A. B. C