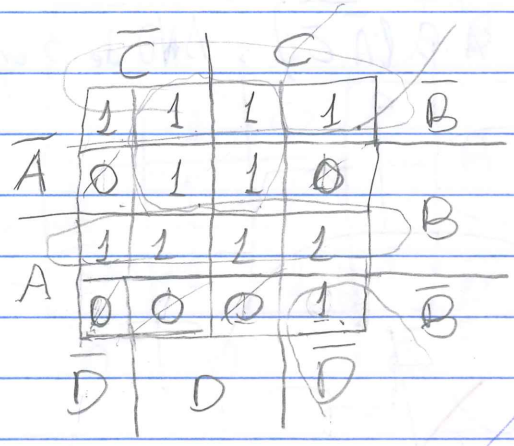
Erickson G. Müller

▨ = correção



a expressão não pode dar dúvida interpretação para circuitos equivalentes

$\bar{A} \oplus B$

a) $S = \overline{\overline{A} \cdot D} + \overline{B} \cdot (C \cdot \overline{D}) + \overline{A \cdot B + A \cdot B}$

b)

A	B	C	D	S
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	0
0	1	1	1	1
1	0	0	0	0
1	0	0	1	0
1	0	1	0	1
1	0	1	1	0
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

$S = \bar{A} \cdot D + \bar{B} C \bar{D} + \bar{A} \cdot \bar{B} + A \cdot B$

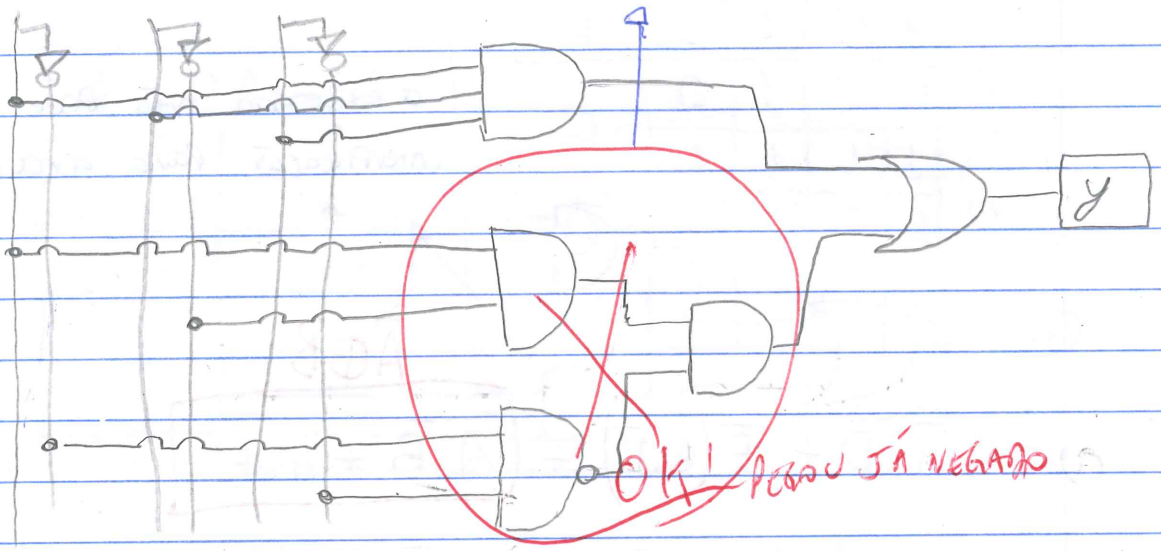
c) $S = \bar{B}(\bar{A} + C\bar{D}) + AB + \bar{A}D$

A	B	C	D	$\overline{\bar{A}D}$	$+ \bar{B} \cdot (C \cdot \bar{D})$	$+ \overline{A \oplus B}$	
0	0	0	0	0	0	1	1
0	0	0	1	1	0	1	1
0	0	1	0	0	1	1	1
0	0	1	1	1	0	1	1
0	1	0	0	0	0	0	0
0	1	0	1	1	0	0	1
0	1	1	0	0	0	0	0
0	1	1	1	1	0	0	1
1	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0
1	0	1	0	0	1	0	1
1	0	1	1	0	0	0	0
1	1	0	0	0	0	1	1
1	1	0	1	0	0	1	1
1	1	1	0	0	0	1	1
1	1	1	1	0	0	1	1

2) a) A B C

x y z

$A \cdot B \cdot (\overline{A} \cdot \overline{C})$ = AND de 3 entradas



b) $y = ABC + A\overline{B} \cdot (\overline{\overline{A} \cdot \overline{C}})$

$y = ABC + A\overline{B} \cdot (\overline{A} + C)$

$y = ABC + A\overline{B}A + A\overline{B}C$

$y = ABC + A\overline{B}(1 + C)$

$y = A(BC + \overline{B})$

$y = ABC + A\overline{B}$ → $y = A \cdot (BC + \overline{B})$

$AC \cdot (B + \overline{B}) + A\overline{B}$

$AC + A\overline{B}$

$A(C + \overline{B})$

$AC + A\overline{B}$

3-)

	$\overline{C}$		C		
$\overline{A}$	1	0	1	1	$\overline{B}$
	0	0	0	1	B
A	0	0	1	1	
	1	1	1	1	$\overline{B}$
	$\overline{D}$	D	$\overline{D}$		

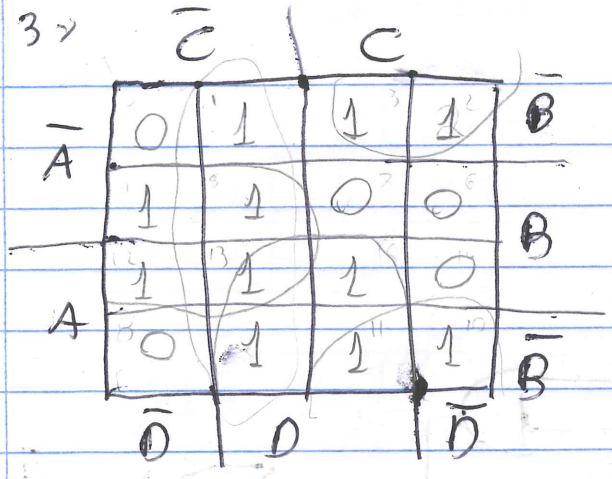
$S = \overline{B} \cdot \overline{D} + C \cdot \overline{D} + \overline{B} \cdot C + A \cdot C + A \cdot \overline{B}$

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

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

→ Não Precisa Simplificar Karnaugh

3)



$R = A.\bar{D} + \bar{C}.D + B.\bar{C} + \bar{B}.C$

$R = \bar{D}(A+\bar{C}) + B\bar{C} + \bar{B}C$

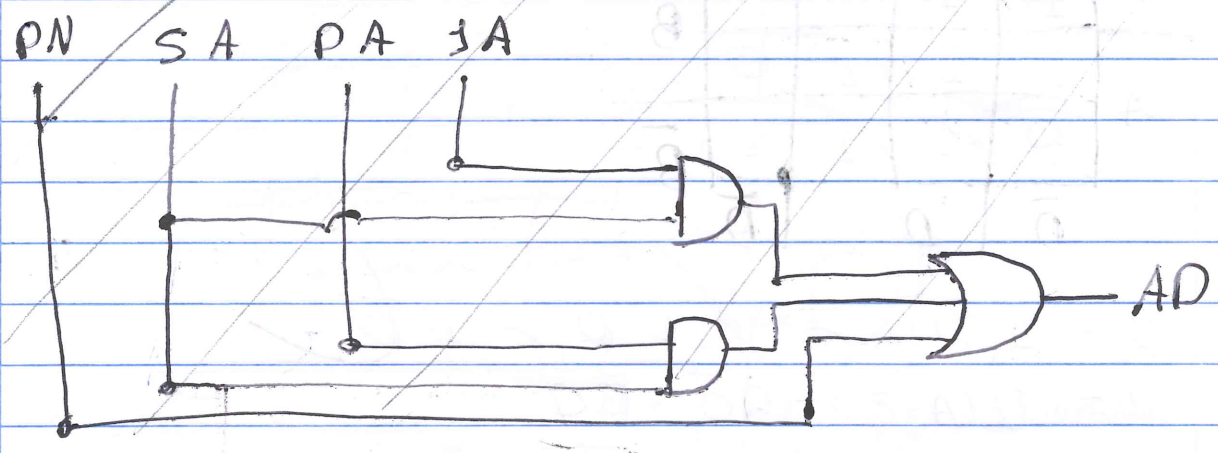
4-) $AD = PN + (SA.PA) + (SA.JA)$

b) $AD = PN + SA.(PA + JA)$

a)

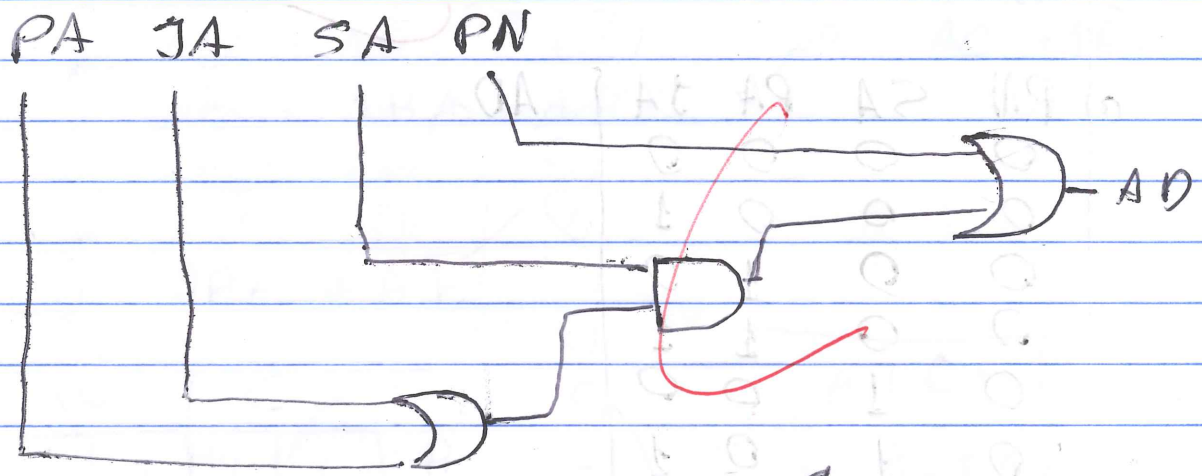
PN	SA	PA	JA	AD
0	0	0	0	0
0	0	0	1	0
0	0	1	0	0
0	0	1	1	0
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

4-) AD = PN + SA.PA + SA.JA



4-) AD = PN + SA.(PA + JA)

a)



Favor considerar esta como minha resposta

5-)

a) 7408, 7432, 7404