



Propuesta Temática del Proyecto Integrador



Tema:

02_Actuación en clase: Circuitos combinacionales

Autor/es:

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Carrera: Tecnología Superior en Desarrollo de Software

Ejercicios de simplificación de funciones lógicas

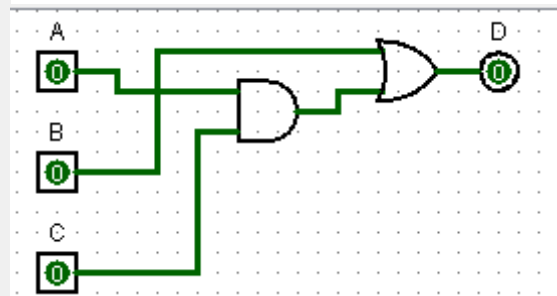
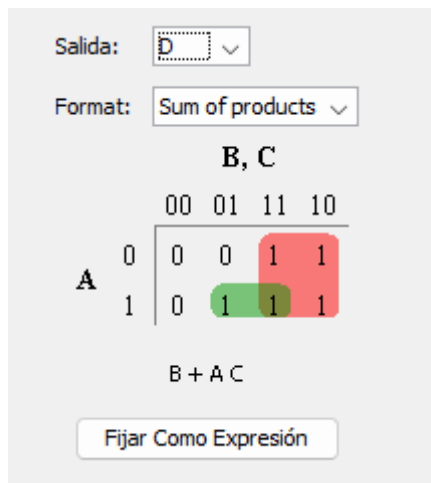
Resolver:

$$AB + A(B+C) + B(B+C)$$

$$AB+AC+B+BC$$

$$AB+AC+B$$

$$B+AC$$

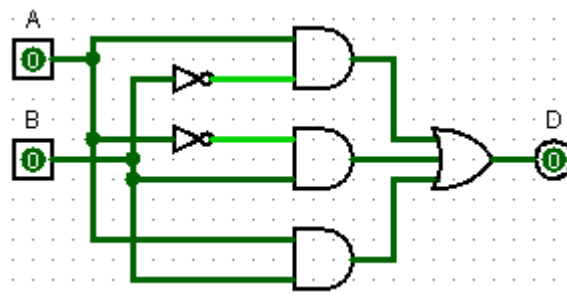
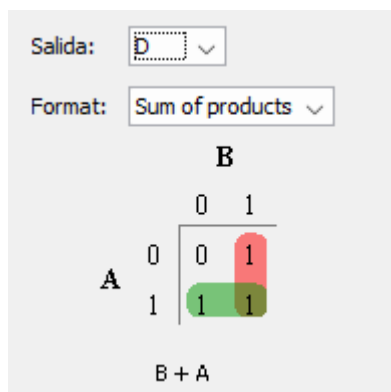


$$AB' + A'B + AB$$

$$A \sim B + B(\sim A + A)$$

$$A \sim B + B$$

$$A + B$$



$$AB' + ABC + AB'C + AB$$

$$A \sim B + AB(C + C') + AB$$

$$A \sim B + AB + AB$$

$A+AB$

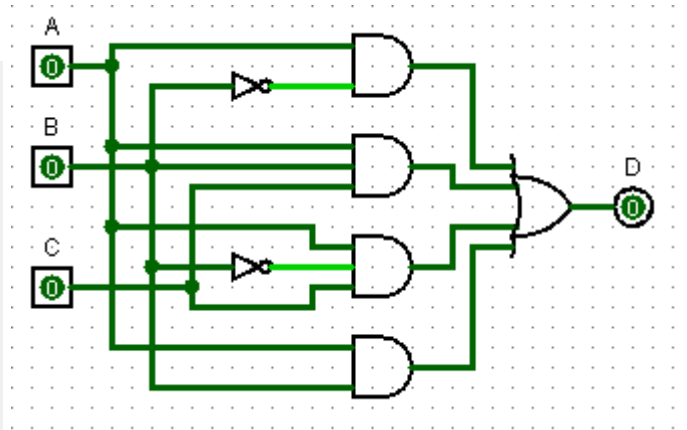
A

Salida:

Format: Sum of products

		B, C			
		00	01	11	10
A	0	0	0	0	0
	1	1	1	1	1

A



$(X+Y)(X+Z)$

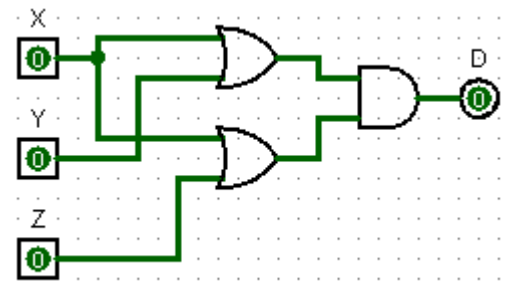
$YZ+X$

Salida:

Format: Sum of products

		Y, Z			
		00	01	11	10
X	0	0	0	1	0
	1	1	1	1	1

$YZ+X$



$(A \cdot B \cdot C) + (B \cdot C) + (A \cdot B)$

$B(AC+C)+(AB)$

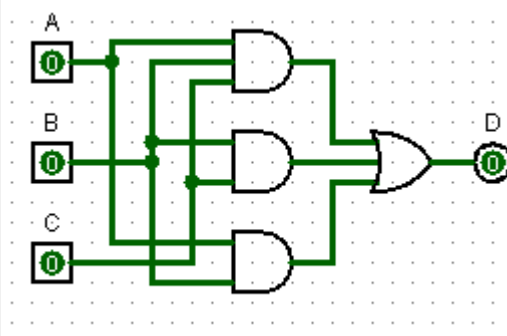
$BC+AB$

Salida:

Format: Sum of products

		B, C			
		00	01	11	10
A	0	0	0	1	0
	1	0	0	1	1

$BC+AB$





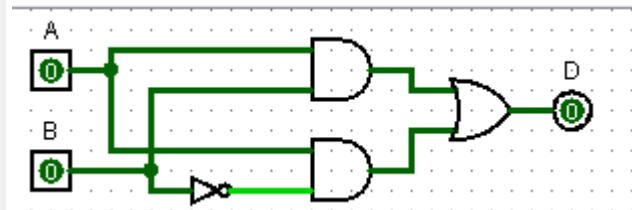
$$AB+AB'=A$$

A

Salida:

Format:

		B	
		0	1
A	0	0	0
	1	1	1
		A	



$$(A+B) * (A+B')$$

$$AA+A \sim B+BA+B \sim B$$

$$A+A \sim B+BA+B \sim B$$

$$A+A \sim B+BA+0$$

$$A(B+\sim B)$$

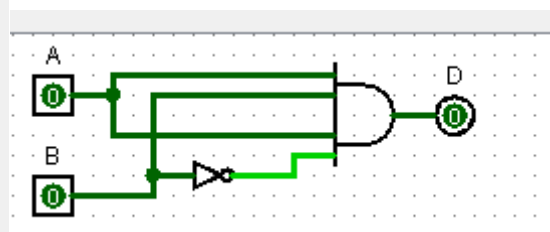
$$A(1)$$

$$0$$

Salida:

Format:

		B	
		0	1
A	0	0	0
	1	0	0
		0	



$$(AB+C)(A+BC)$$

$$\sim((AB+C)(A+BC))$$

$$\sim(ABA+ABBC+CA+CBC)$$

$$\sim(AB+ABC+CA+CB)$$

$$\sim(A(B+BC)+CA+CB))$$

$$\sim(A+CA+CB)$$

$$\sim(A+CB)$$

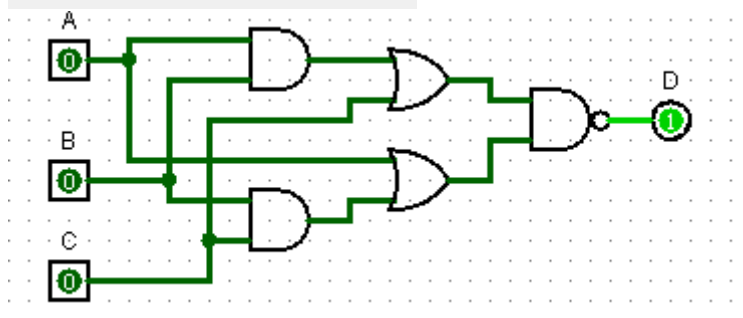
$$\sim A$$

Salida:

Format:

		B, C			
		00	01	11	10
A	0	1	1	0	1
	1	1	0	0	0

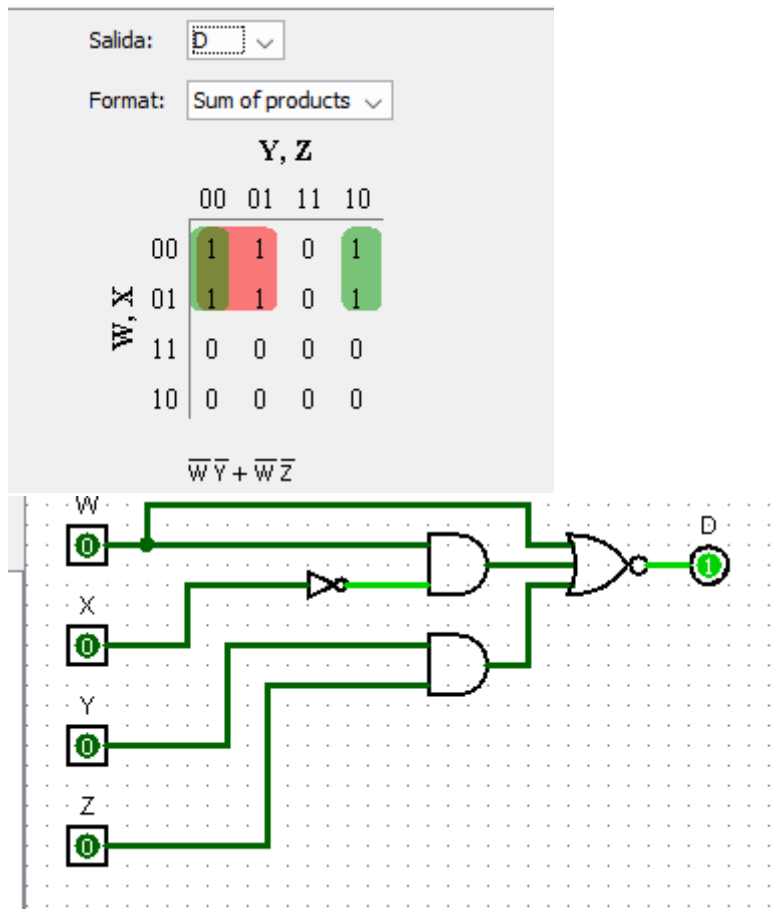
$\overline{A}\overline{B} + \overline{A}\overline{C} + \overline{B}\overline{C}$



$$(W+WX'+YZ)'$$

$$\sim(W+W\sim X+YZ)$$

$$\sim W\sim Y+\sim W\sim Z$$



$$\overline{A+B} + \overline{C} + D(\overline{E+F})$$

$$B\sim C\sim D+B\sim CF+B\sim C+A\sim D+AF+AE$$

