COMPUERTAS LÓGICAS

Organización Computacional

09 de octubre de 2019

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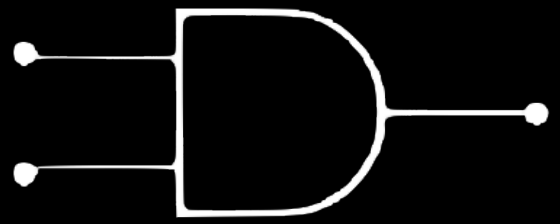
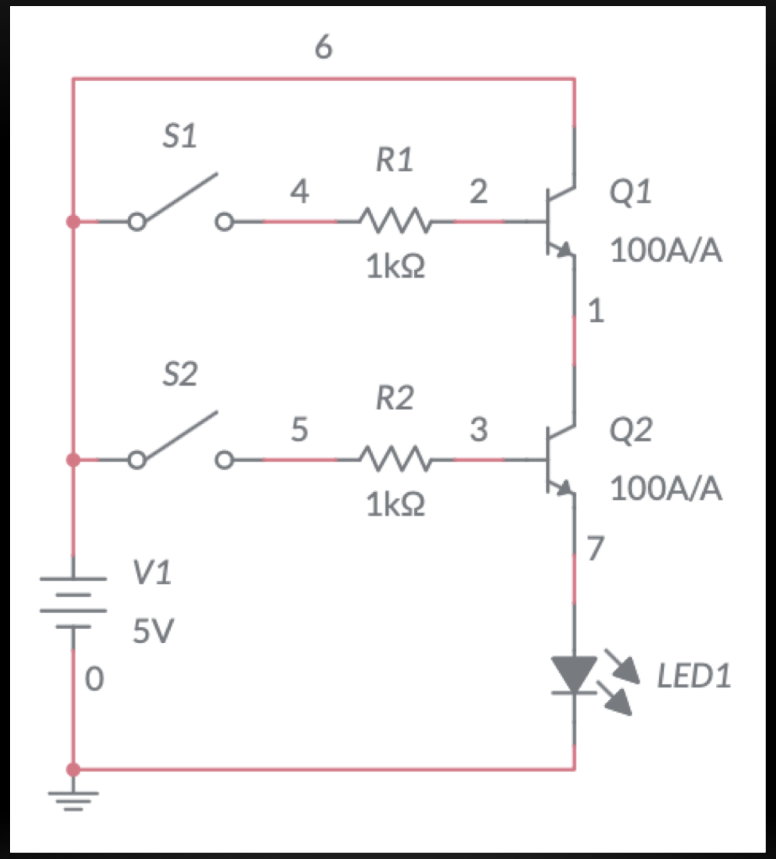
DEFINICIÓN

- Circuitos lógicos.
- Manipulación de variables binarias.
- Operadores lógicos binarios (+, *).
- Los resultados son booleanos (0, 1).
- Se pueden conectar entre sí.

AND - 7408

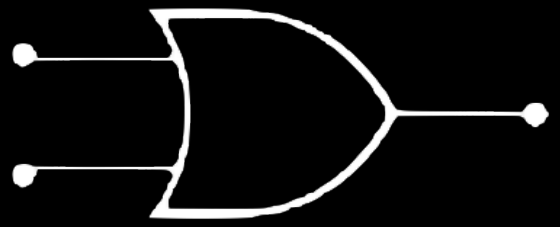


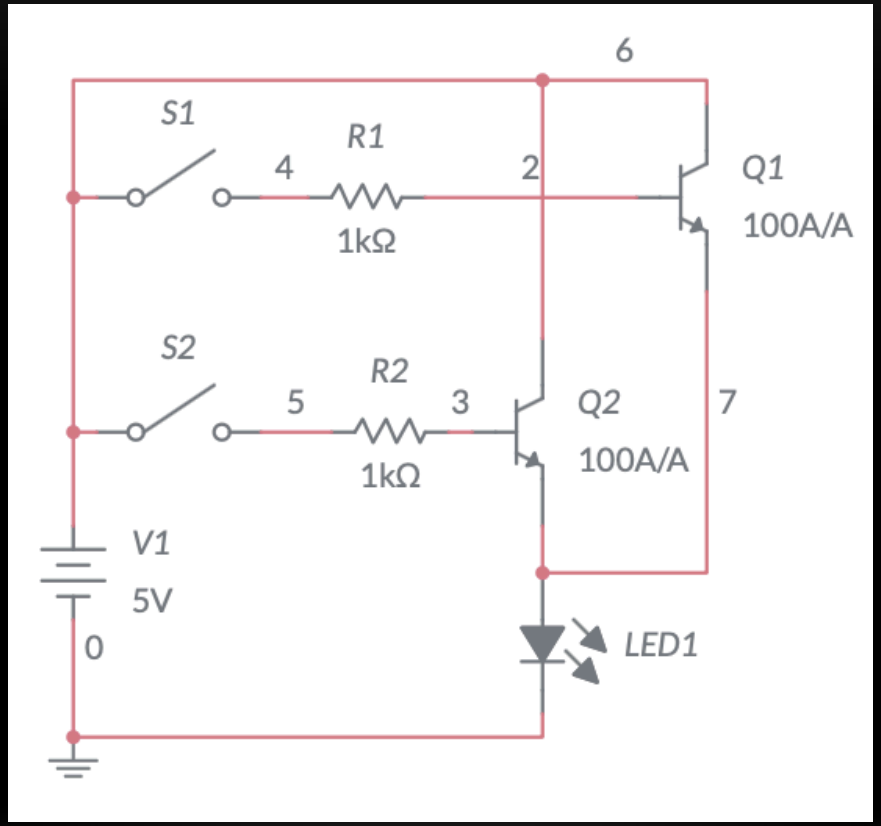


$$Q = A * B$$

A	B	Q
0	0	0
0	1	0
1	0	0
1	1	1

OR - 7432

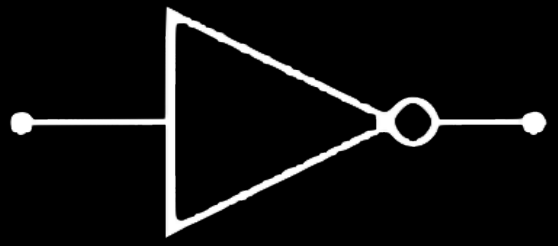


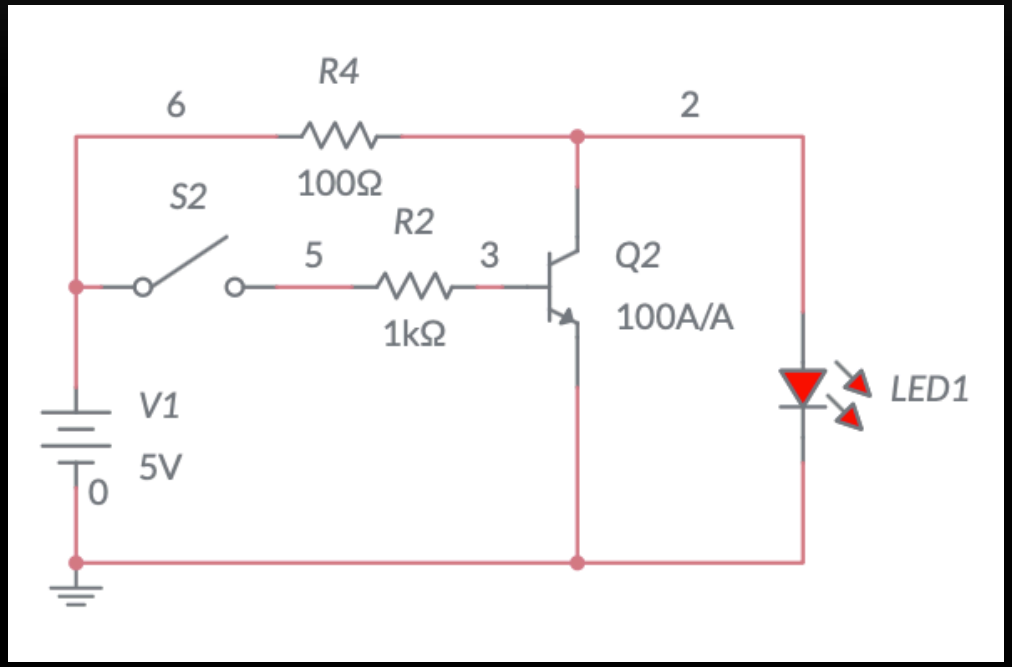


$$Q = A + B$$

A	B	Q
0	0	0
0	1	1
1	0	1
1	1	1

NOT - 7404

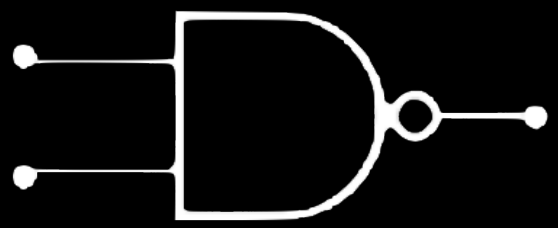


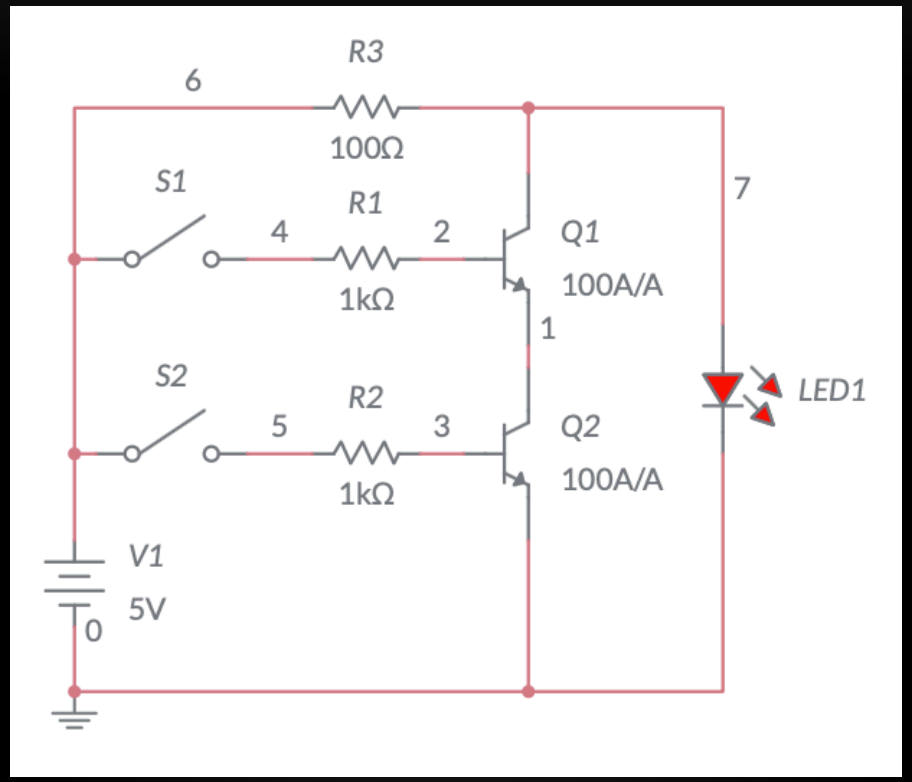


$$Q = \bar{Q}$$

Q	Q
0	1
1	0

NAND - 7400

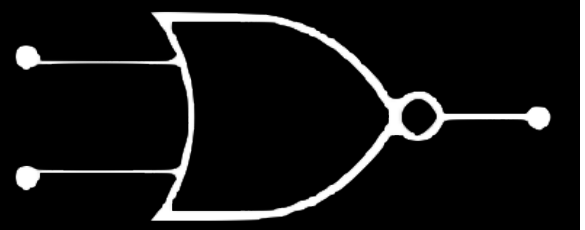


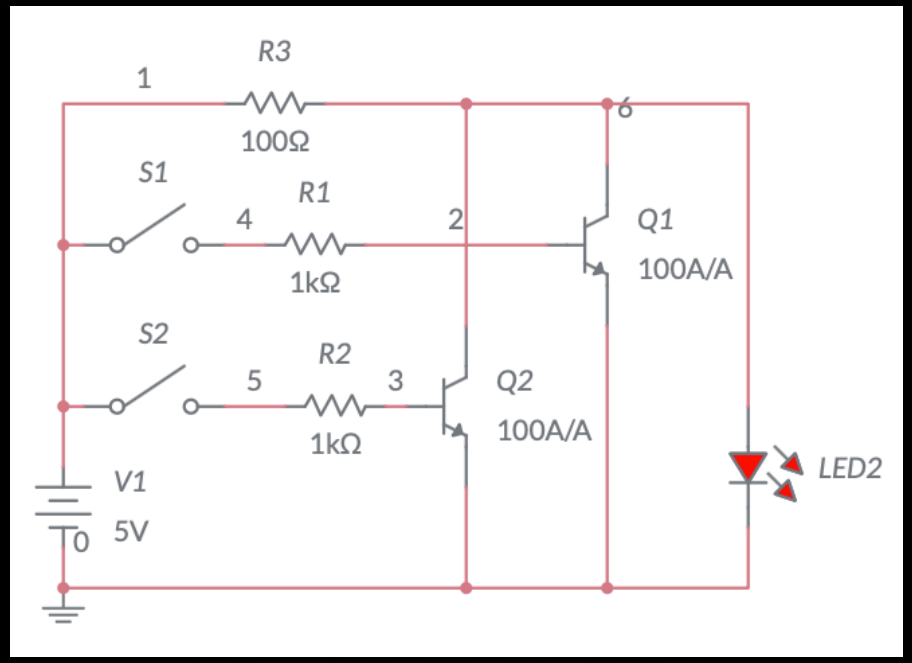


$$Q = \overline{A * B}$$

A	B	Q
0	0	1
0	1	1
1	0	1
1	1	0

NOR - 7402

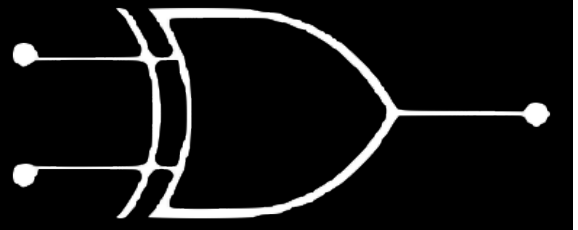


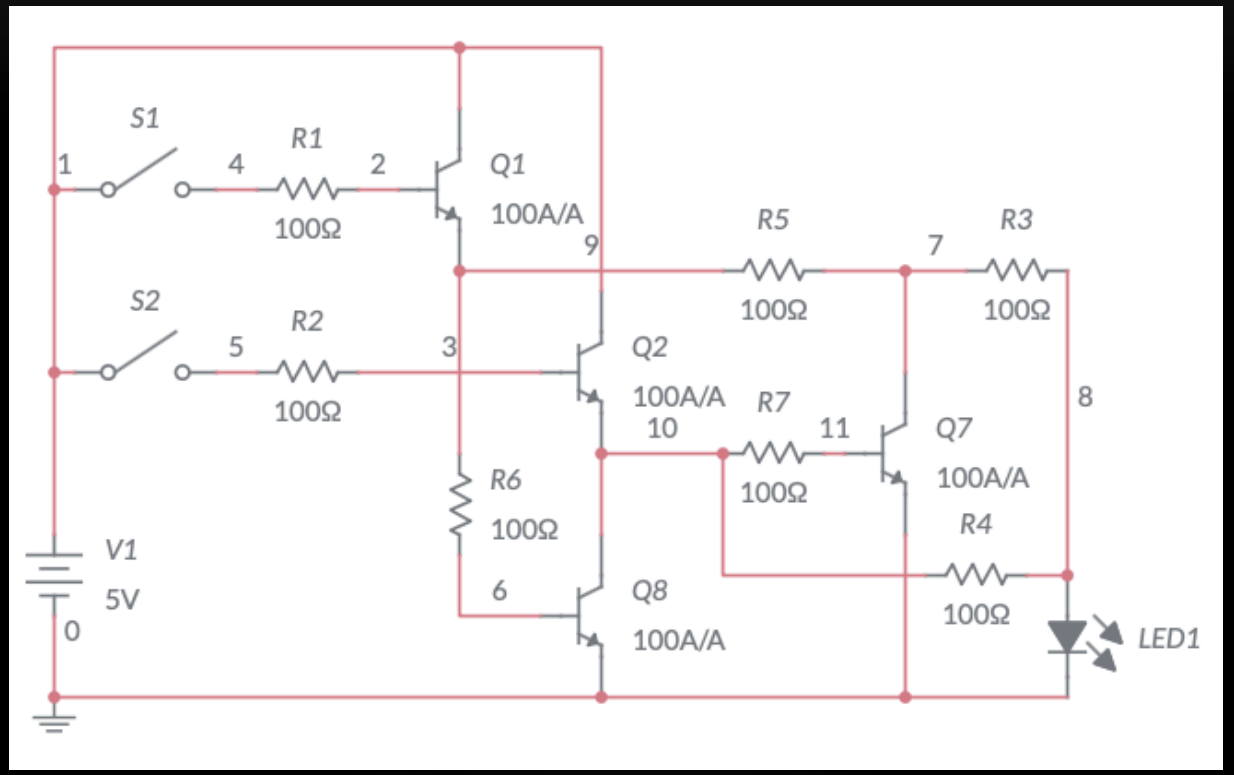


$$Q = \overline{A + B}$$

A	B	Q
0	0	1
0	1	0
1	0	0
1	1	0

XOR - 7486

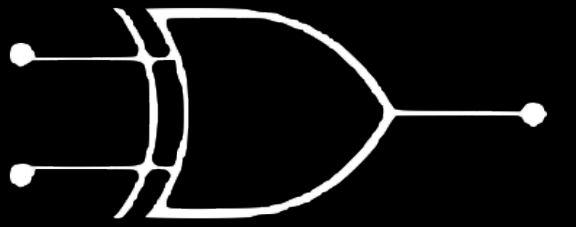


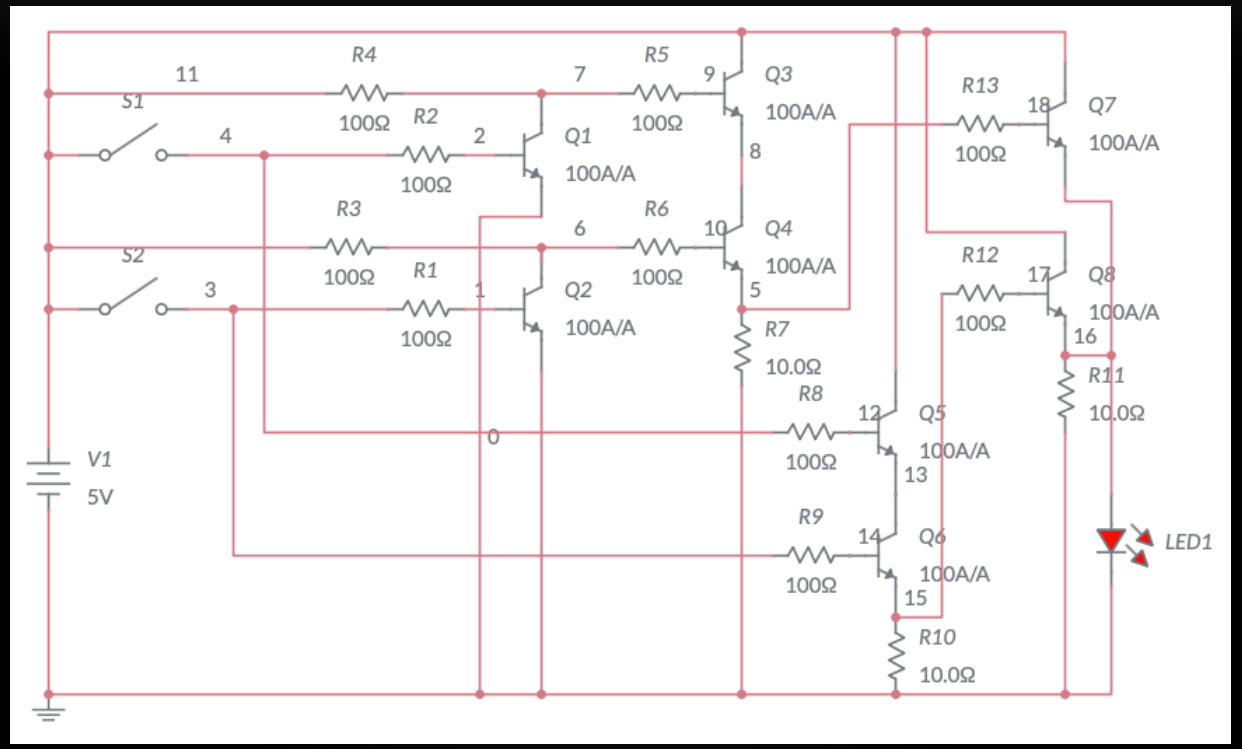


$$Q = A * \bar{B} + \bar{A} * B$$

A	B	Q
0	0	0
0	1	1
1	0	1
1	1	0

XNOR - 74266





$$Q = A * B + \overline{A * B}$$

A	B	Q
0	0	1
0	1	0
1	0	0
1	1	1

Universidad Rafael Landívar

Tradición Jesuita en Guatemala

GRACIAS!!!