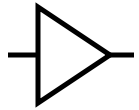


Basic logic gates

Buffer



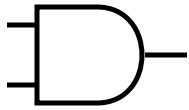
A

A	Y
0	0
1	1

A

7407

AND



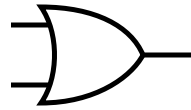
AB

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

$A \& \& B$

7408

OR



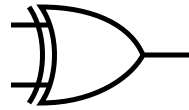
$A+B$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

$A \mid \mid B$

7432

XOR



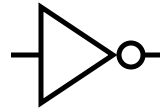
$A \oplus B$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

$A \neq B$

7486

Inverter



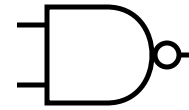
\bar{A}

A	Y
0	1
1	0

$!A$

7404

NAND



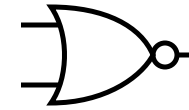
\overline{AB}

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

$!(A \& \& B)$

7400

NOR



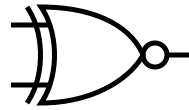
$\overline{A+B}$

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

$!(A \mid \mid B)$

7402

XNOR



$\overline{A \oplus B}$

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	1

$A == B$

various

Key representations

Boolean equation

$$\overline{AB} + C$$

Truth table

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

Logic diagram

