Name: Date: Class:

LOGIC GATES AND TRUTH TABLES

Buffer

INPUT	OUTPUT
1	1
0	0

Does not change the input. Same output as input

NOT

INPUT	OUTPUT
1	0
0	1

output is the opposite of the input

AND

A	B	OUTPUT
1	1	1
1	0	0
0	1	0
0	0	0

output is 1 only if every input is 1

NAND

A	B	OUTPUT
1	1	0
1	0	1
0	1	1
0	0	1

output is 0 only if every input is 1

OR

A	B	OUTPUT
1	1	1
1	0	1
0	1	1
0	0	0

output is 1 if any input is 1

NOR

A	B	OUTPUT
1	1	0
1	0	0
0	1	0
0	0	1

output is 1 only if every input is 0

XOR

A	B	OUTPUT
1	1	0
1	0	1
0	1	1
0	0	0

output is 1 if inputs differ

XNOR

A	B	OUTPUT
1	1	1
1	0	0
0	1	0
0	0	1

output is 1 if inputs match

TeachEngineering

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