

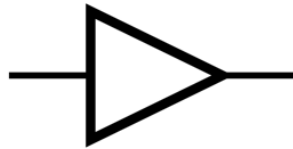
Logic Gates

Empower
Digital Week



BUFFER

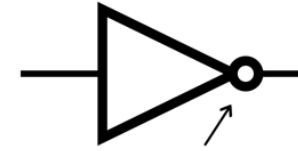
"Output = Input"



Input	Output
0	0
1	1

NOT

"Inverter"



"Opposite circle"

Input	Output
0	1
1	0

AND

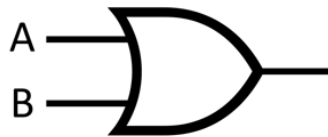
"This and that"



A	B	Output
0	0	0
0	1	0
1	0	0
1	1	1

OR

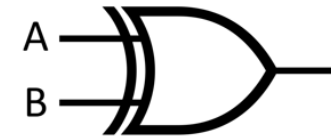
"This or that"



A	B	Output
0	0	0
0	1	1
1	0	1
1	1	1

XOR

"This or that. Not both!"



*(aka EXOR/
"Exclusive OR")*

A	B	Output
0	0	0
0	1	1
1	0	1
1	1	0

NAND

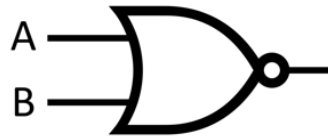
"NOT-AND"



A	B	Output
0	0	1
0	1	1
1	0	1
1	1	0

NOR

"NOT-OR"



A	B	Output
0	0	1
0	1	0
1	0	0
1	1	0

XNOR

"Exclusive NOT-OR"



*(The inverse of
an XOR gate)*

A	B	Output
0	0	1
0	1	0
1	0	0
1	1	1