

Information & Communication Technology

Logic Gates

Grade 8

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F/1970

RNCOE

 **LIVEWORKSHEETS**

Logic Gates

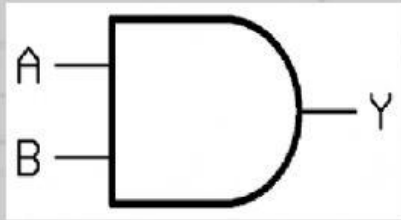
Circuits which enable building of certain logical conditions using binary values and which enable making certain decisions, are called Logic Circuits. The Computer is made of a large number of complex digital circuits. These electronic circuits are designed as required connecting a large number of basic logical circuits called logic gates.

Basic Logic Gates

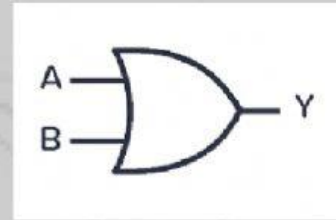
1. AND gate

2. OR gate

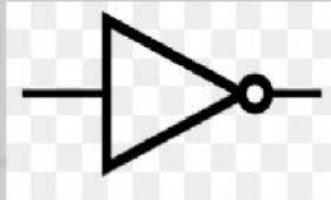
3. NOT gate



1. AND gate

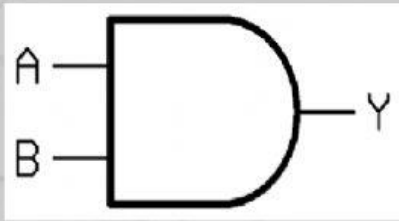


2. OR gate



3. NOT gate

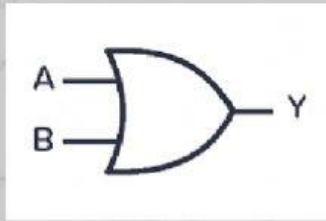
1. AND gate



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

❖ When at least one of the inputs is “0”, The output is “0”

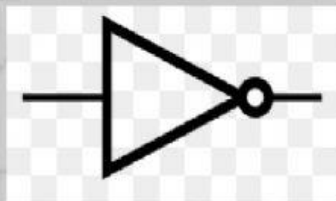
2. OR gate



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

❖ When at least one of the inputs is “1”, The output is “1”

3. NOT gate

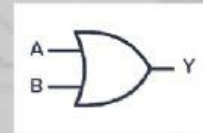


Input	Output
1	0
0	1

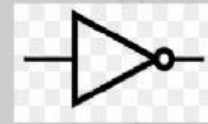
- ❖ When the inputs is “1”, The output is “0”
- ❖ When the inputs is “0”, The output is “1”

- **Match the Logic Gates**

1. NOT gate



2. AND gate



3. OR gate



- Fill in the Blanks

1. AND gate

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

2. OR gate

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

3. NOT gate

Input	Output
1	
0	