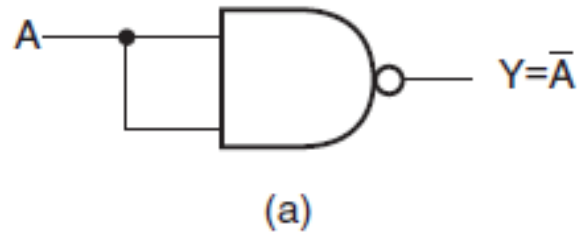


# Implementing Digital Circuits

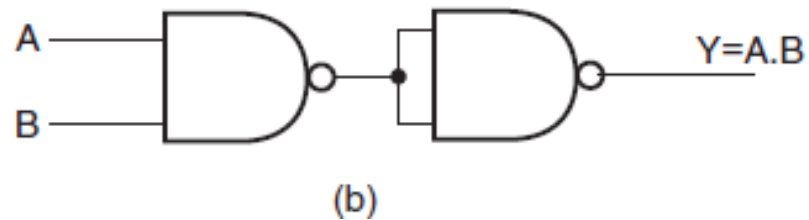
- Logic With Relays
- Integrated Circuit Implementation of Gates
- Transistor-Transistor Logic (TTL)

# Basic logic gate using NAND Gate

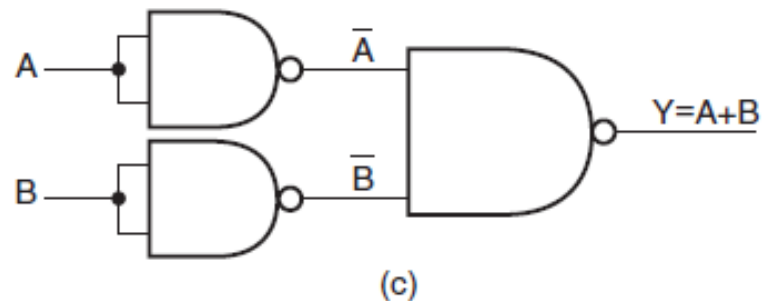
- NOT



- AND

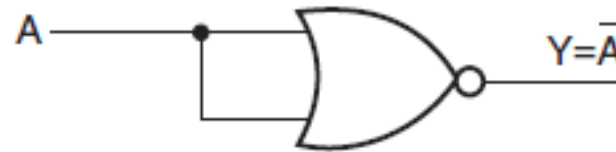


- OR

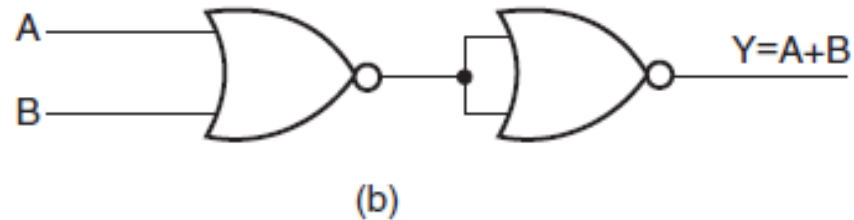


# Basic logic gates using only NOR gates.

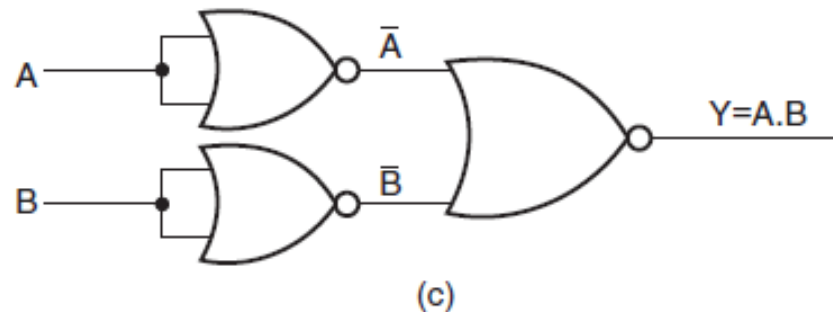
- NOT



- OR



- AND

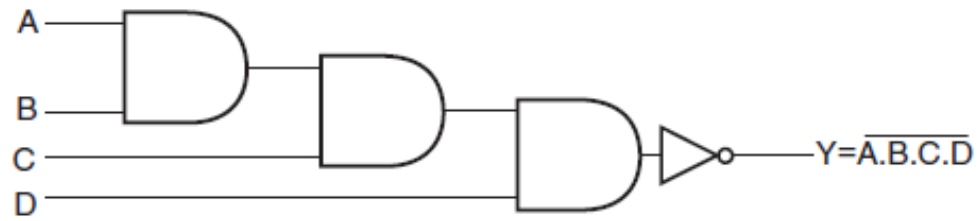


Some logic arrangements using Gate :

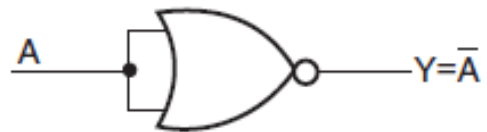
*(a) a four-input NAND gate using two-input AND gates and NOT gates;*

*(b) a NOT circuit using a two-input NAND gate;*

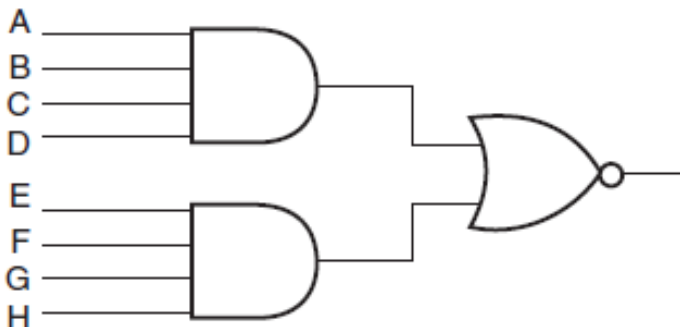
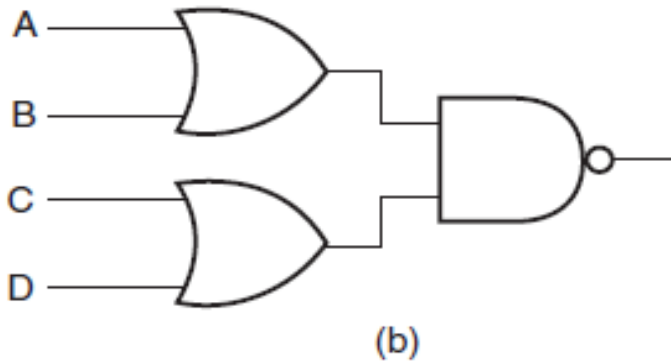
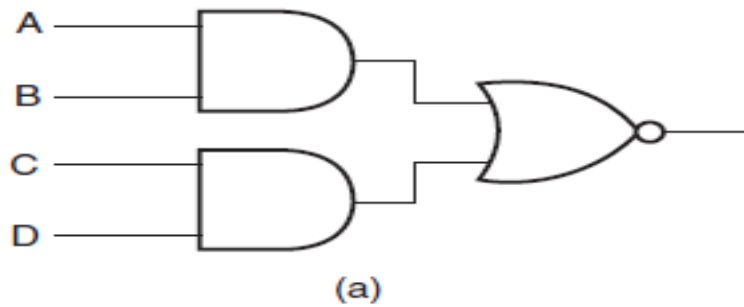
*(c) a NOT circuit using a two-input NOR gate;*



(a)

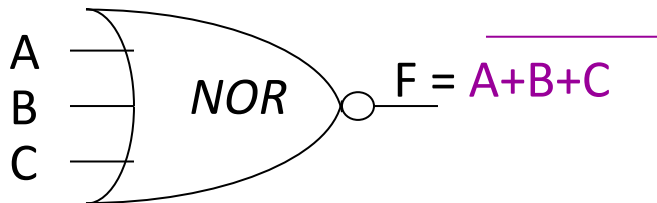
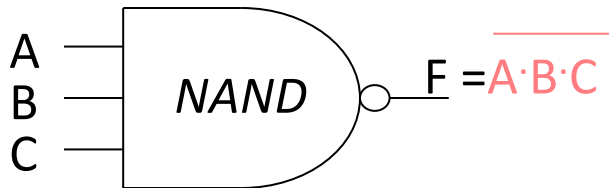
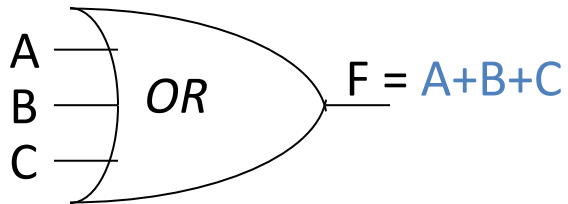
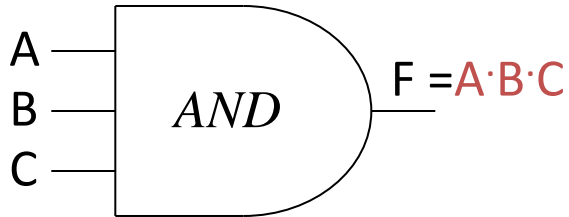


# Find output



# GATES ... with more inputs

EXAMPLES OF  
GATES WITH  
THREE INPUTS



A	B	C	$A \cdot B \cdot C$	$A+B+C$	$\overline{A \cdot B \cdot C}$	$\overline{A+B+C}$
0	0	0	0	0	1	1
0	0	1	0	1	1	0
0	1	0	0	1	1	0
0	1	1	0	1	1	0
1	0	0	0	1	1	0
1	0	1	0	1	1	0
1	1	0	0	1	1	0
1	1	1	1	1	0	0