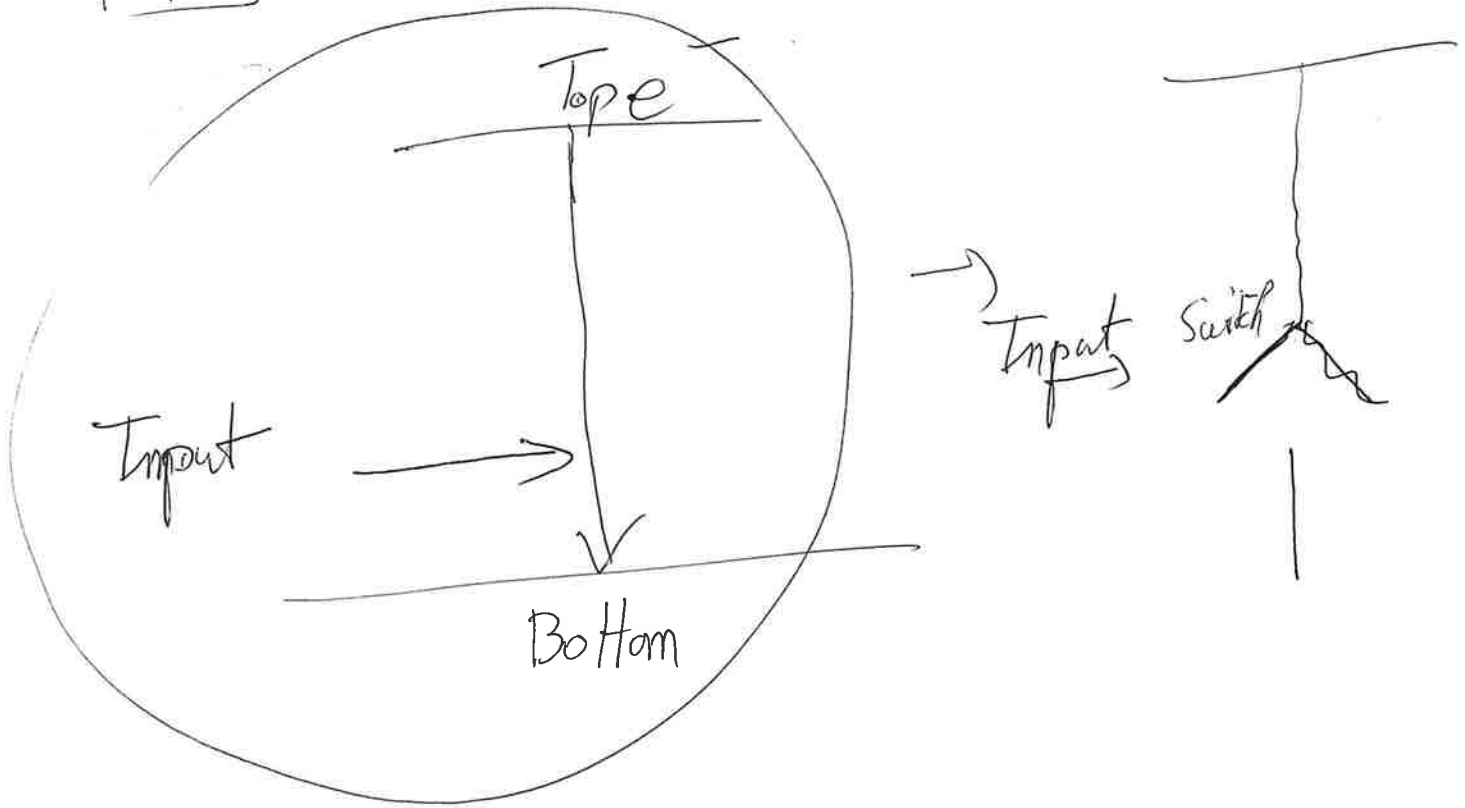
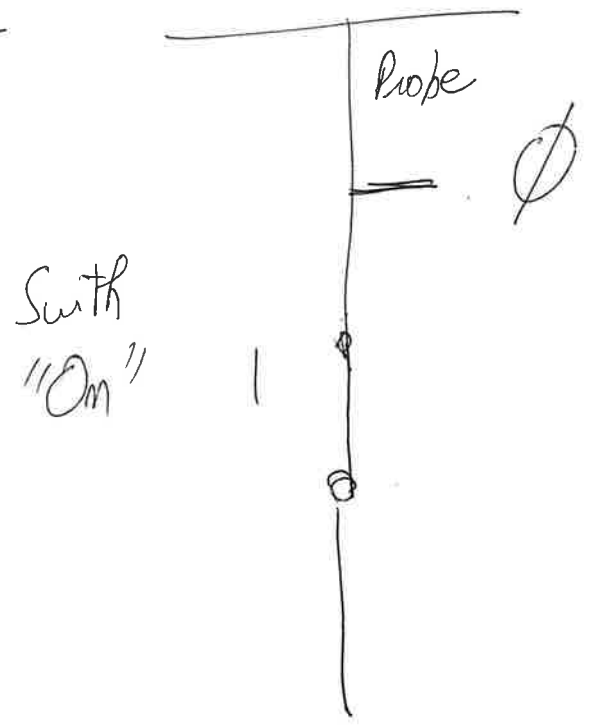
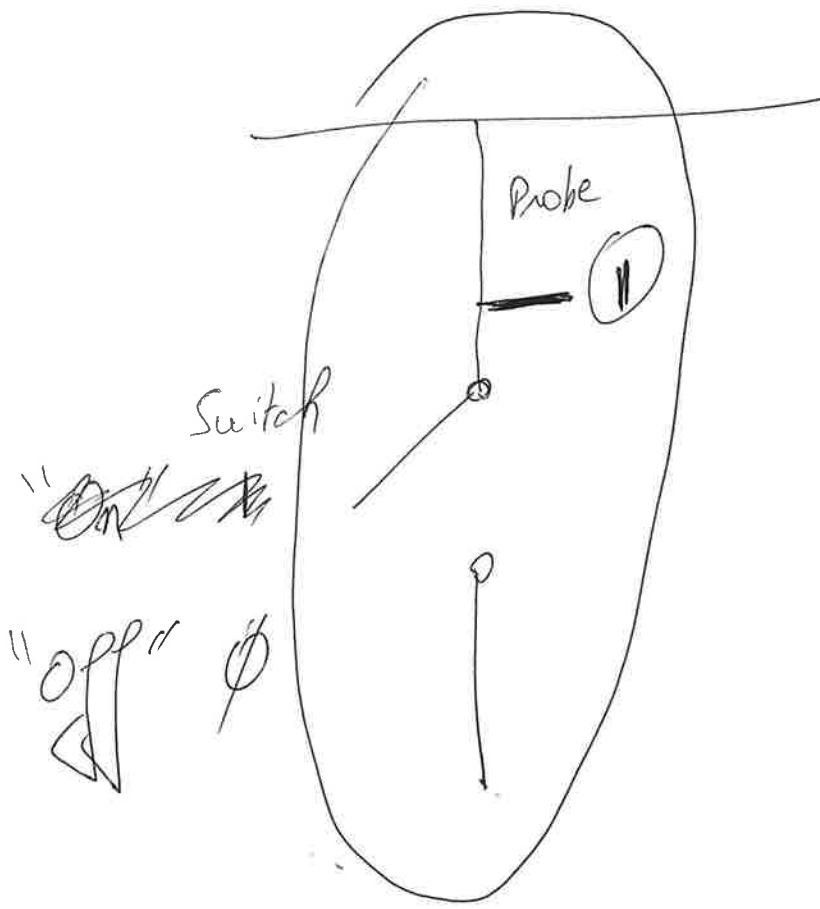
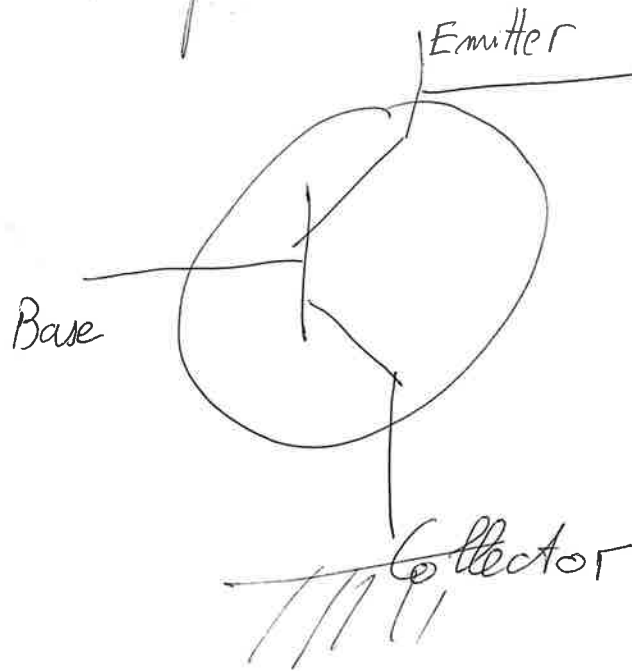


I) Simplest bit manipulation: Inversion

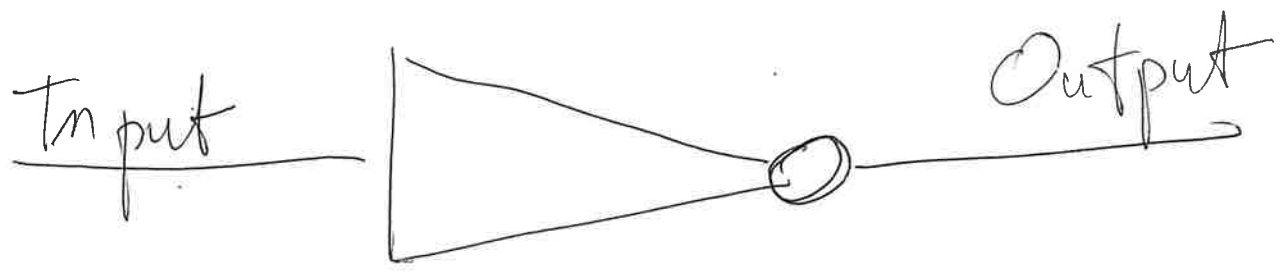
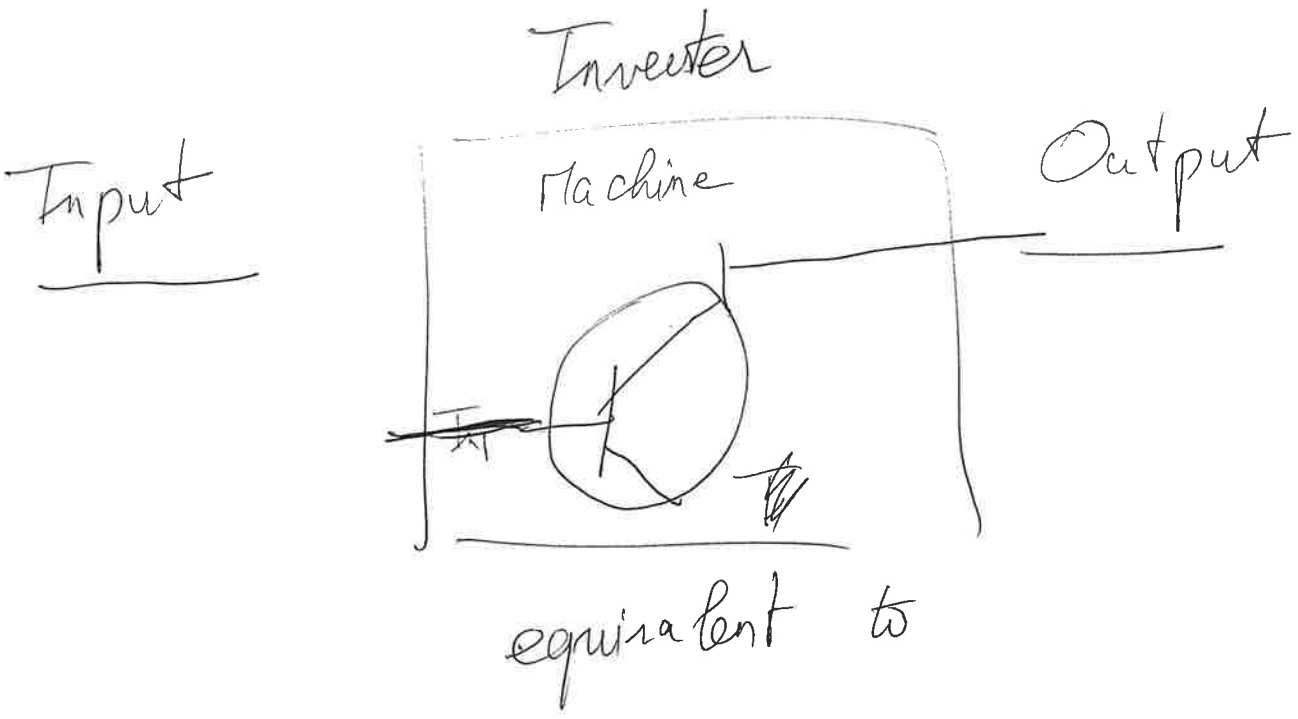




We represent this as Output.



transistor



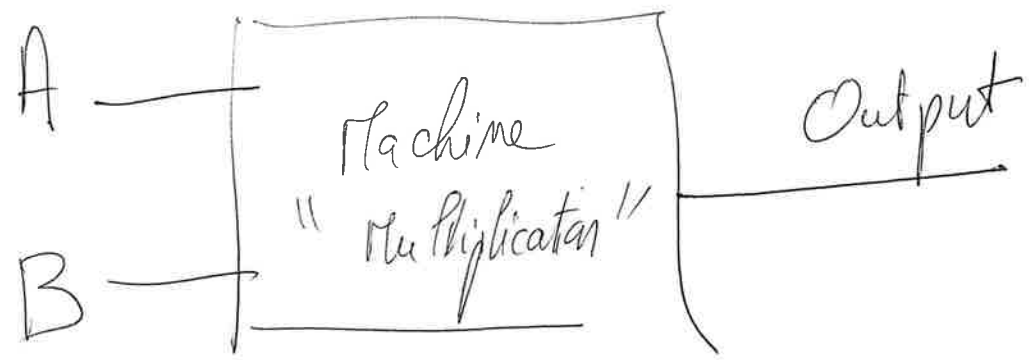
logic gate: NOT

A	A
1	$\emptyset$
$\emptyset$	1

table of truth

# II) Multiplying 2 bits

A multiplication should act on 2 inputs.



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

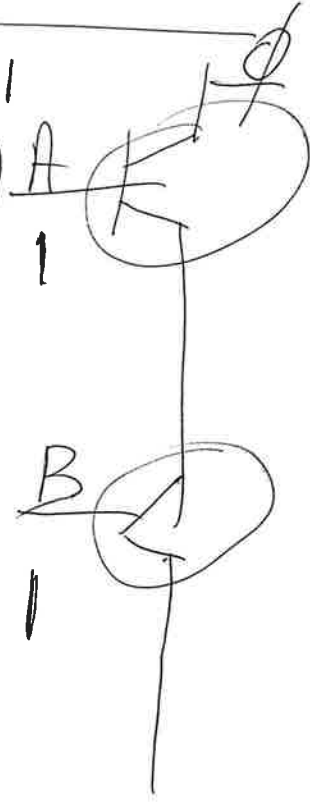
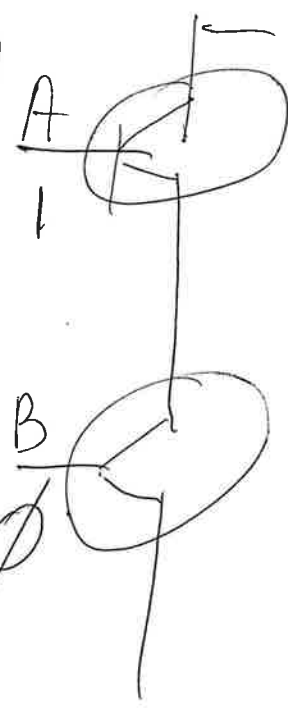
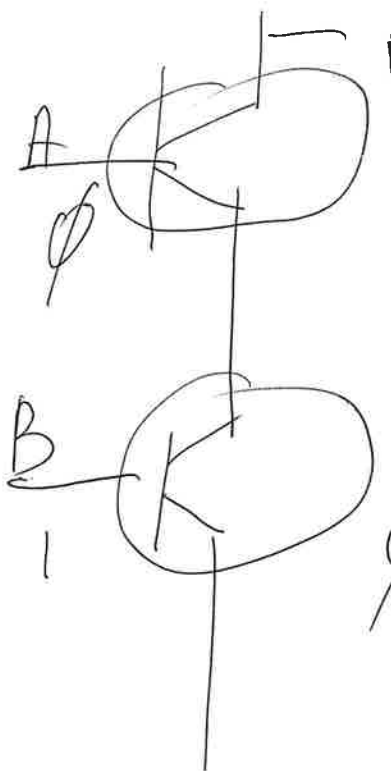
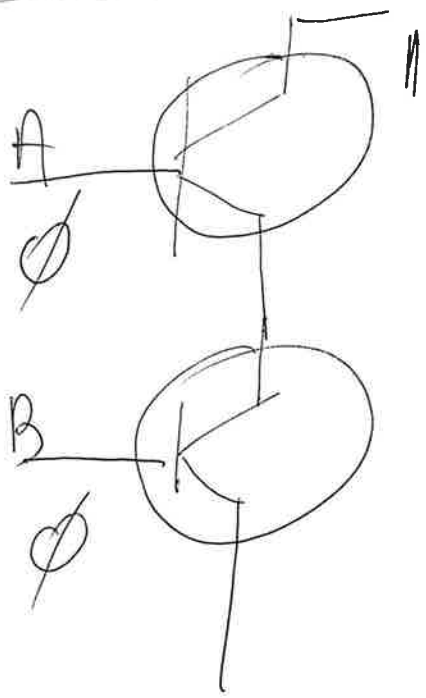
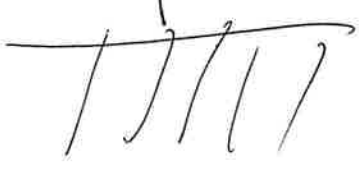
Output.  
①

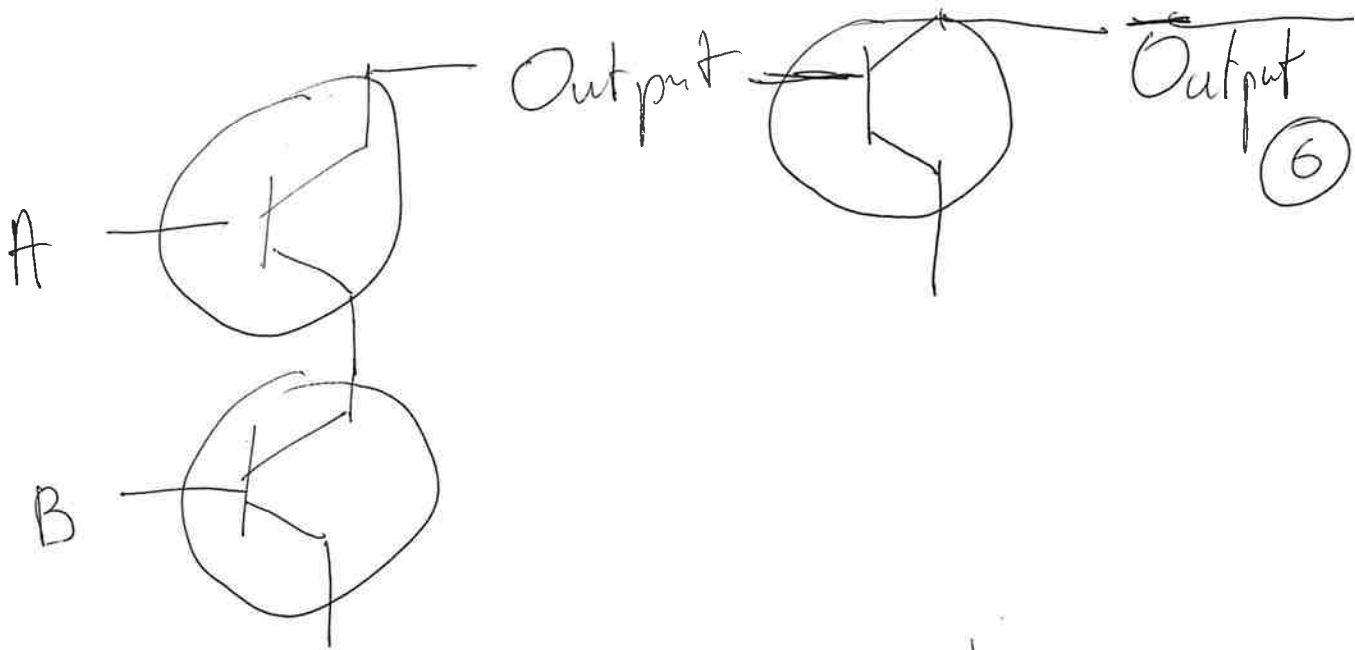


B



1

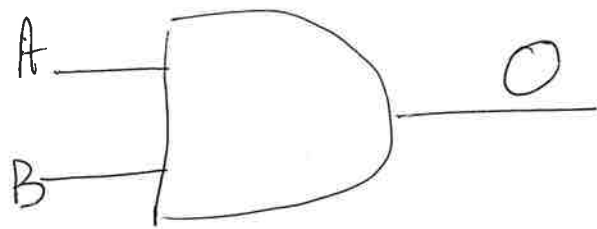




A	B	Output	<u>Output</u>
1	1	0	1
1	0	1	0
0	1	1	0
0	0	1	0

Multiplication

Symbol



Name:

AND or  $A \cdot B$

table:

A	B	$A \cdot B$
1	1	1
0	0	0
0	1	0
1	0	0