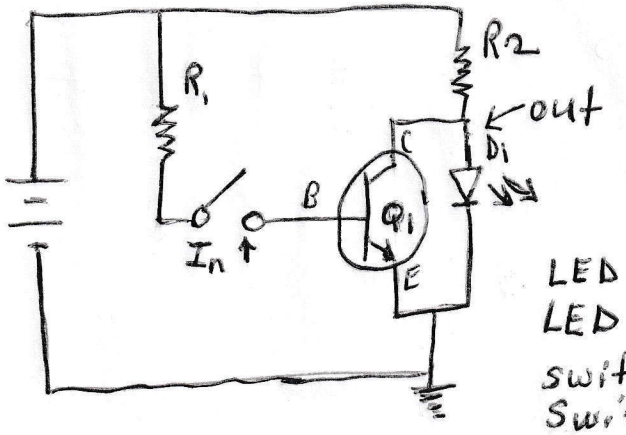
Transistor Logic (Part 2)

Previously in Part 1

Inverter
Buffer
AND Gate
NAND Gate

Transistor 2n2222

Inverter



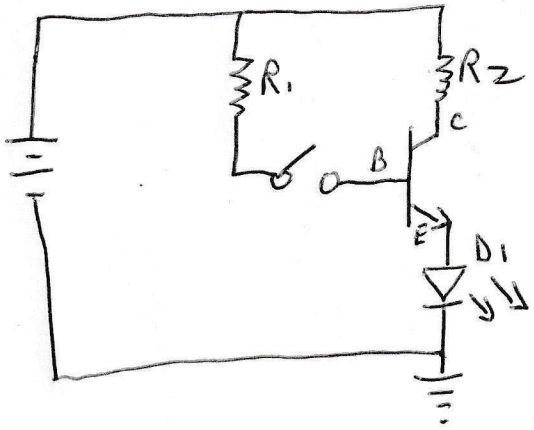
Truth Table

In	out
0	1
1	0

LED OFF = 0
LED ON = 1

switch OFF = 0
Switch ON = 1

Buffer (switch)



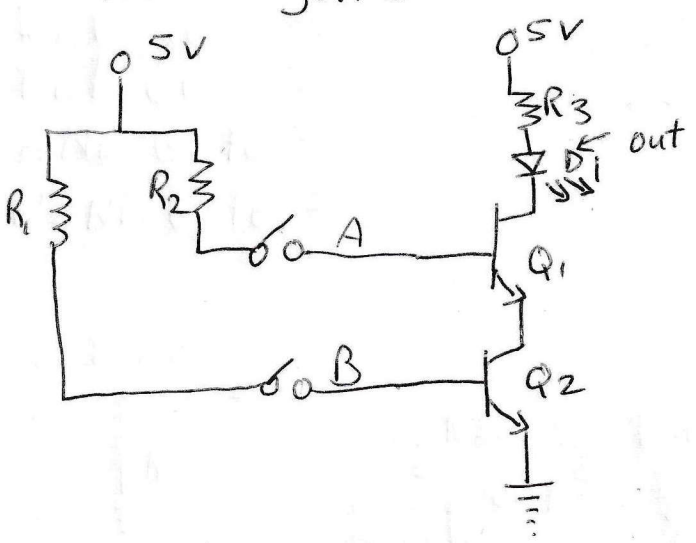
Truth Table

In	Out
0	0
1	1

Transistor Logic
Part 2

Previously in Part 1

"AND" gate



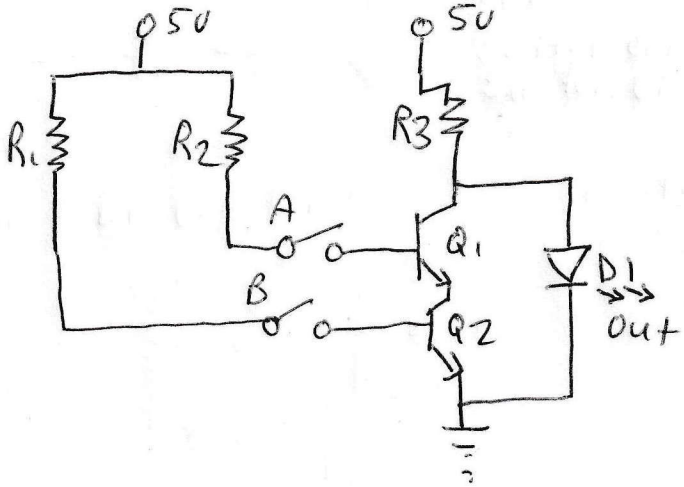
Truth Table

A	B	out
0	0	0
0	1	0
1	0	0
1	1	1

0 = OFF

1 = ON

"NAND" gate

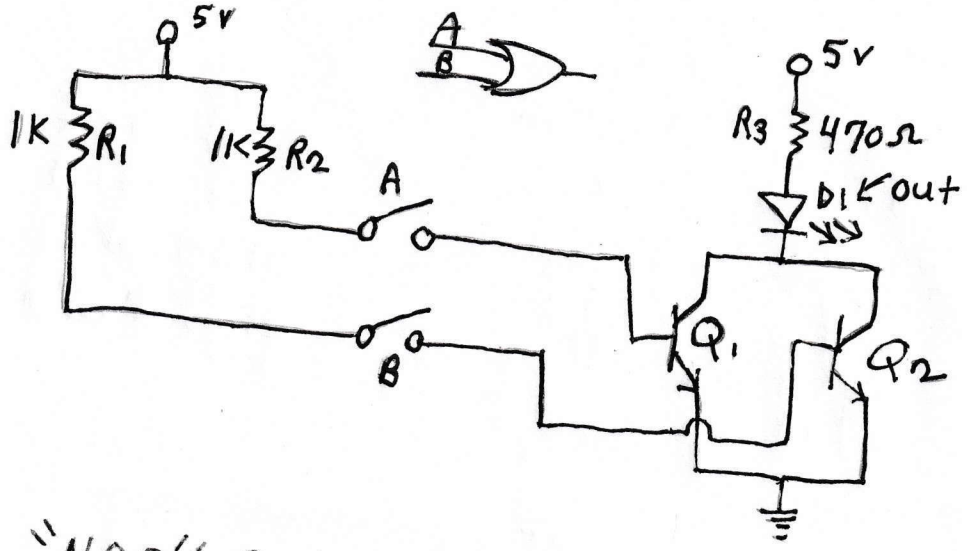


Truth Table

A	B	out
0	0	1
0	1	1
1	0	1
1	1	0

Transistor Logic (Part 2)

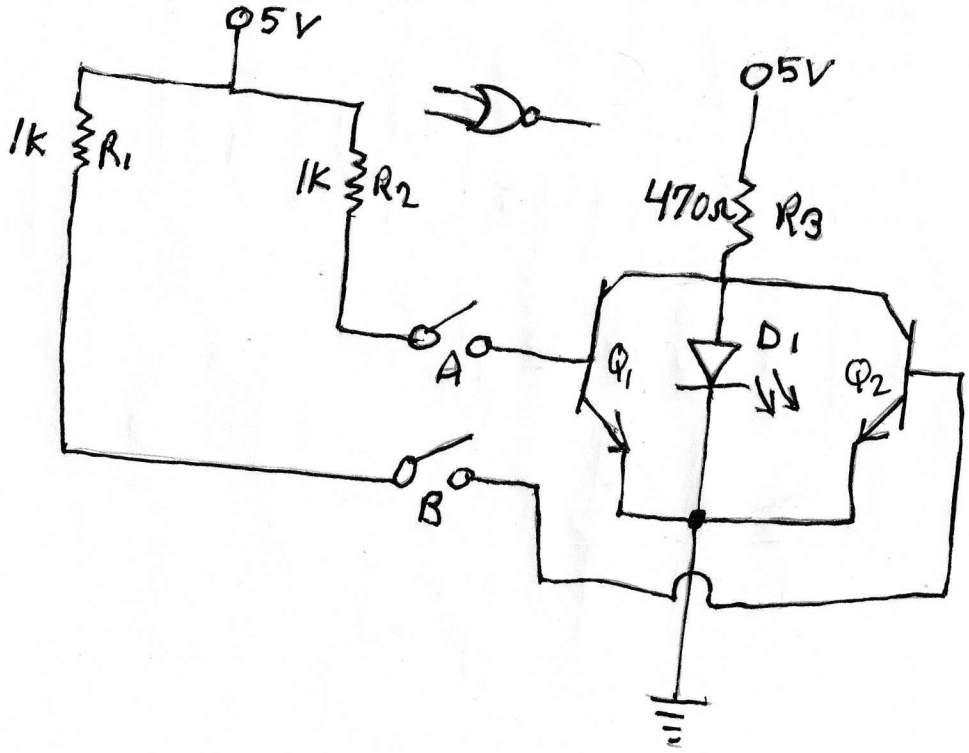
"OR" GATE



A	B	out
0	0	0
0	1	1
1	0	1
1	1	1

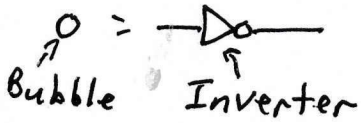
2N2222
NPN

"NOR" Gate



A	B	out
0	0	1
0	1	0
1	0	0
1	1	0

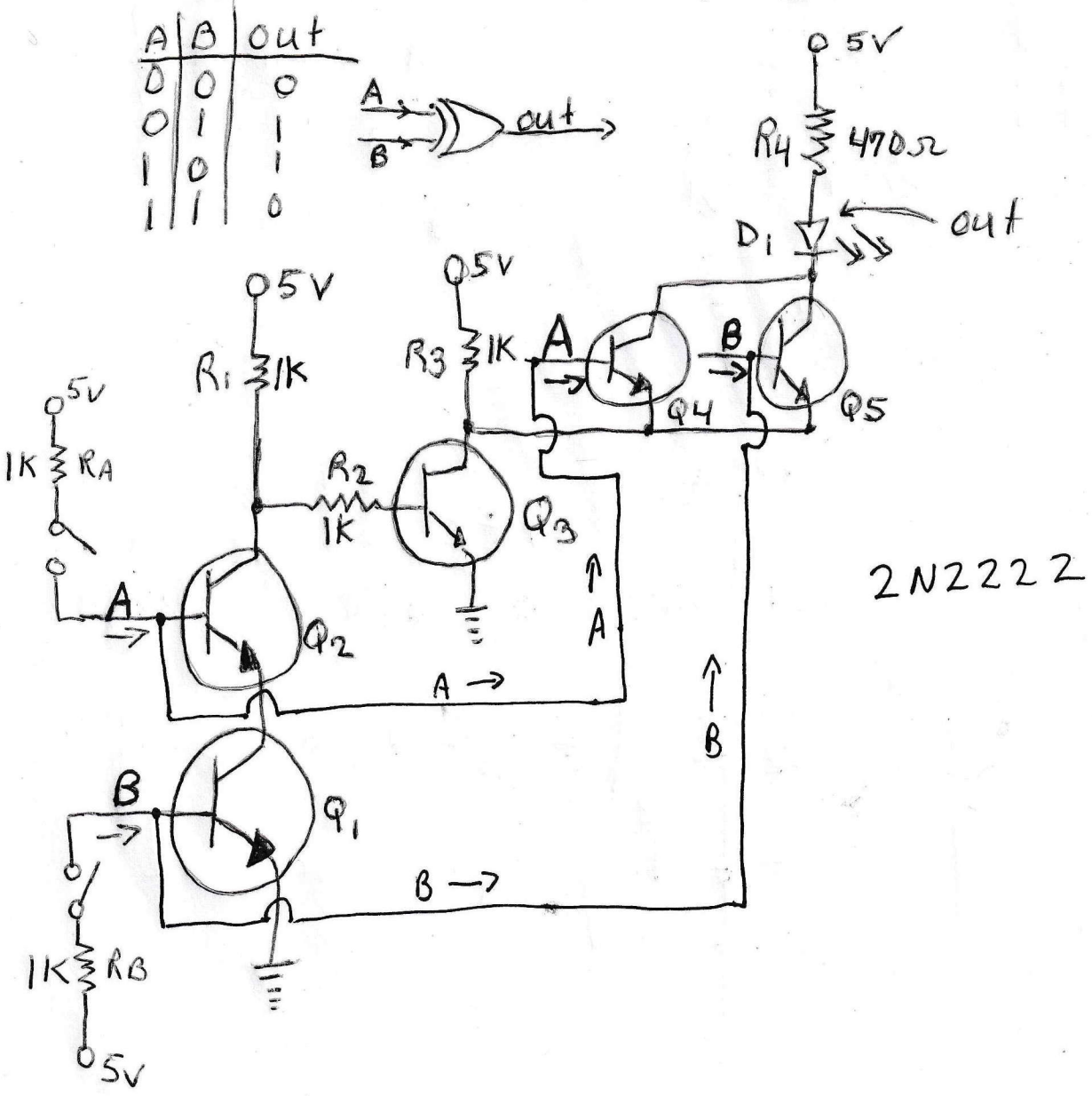
2N2222



Transistor Logic (Part 2)

Truth Table "XOR" GATE

A	B	out
0	0	0
0	1	1
1	0	1
1	1	0



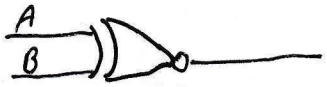
2N2222

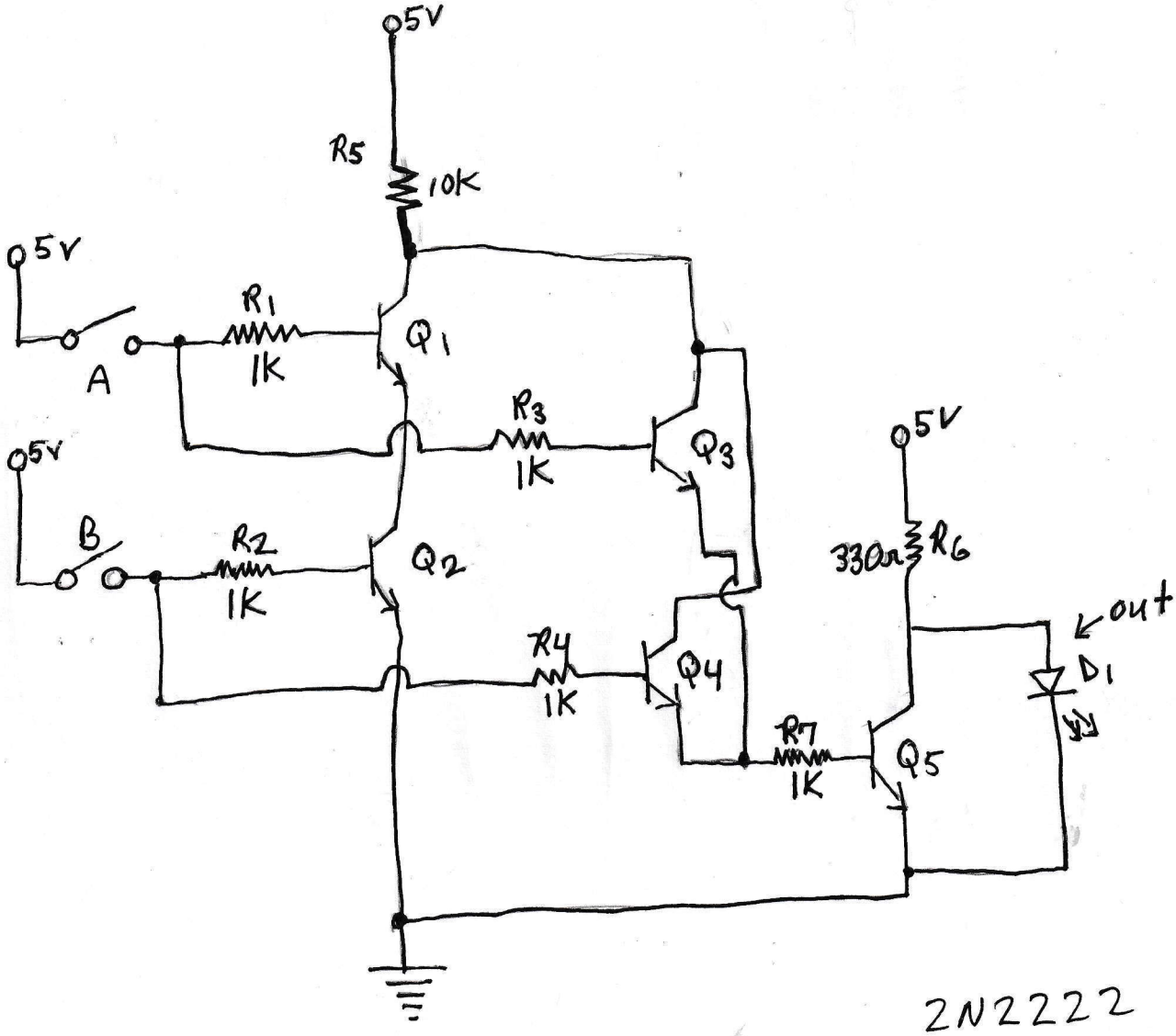
Transistor Logic (Part 2)

Truth Table

A	B	out
0	0	1
0	1	0
1	0	0
1	1	1

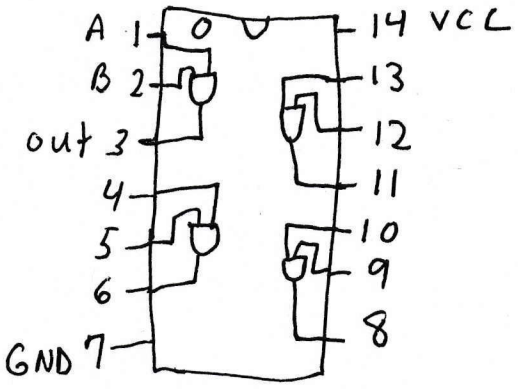
"XNOR" GATE



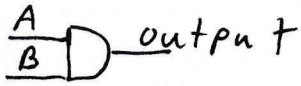


Transistor Logic Part 2

IC



IC 7408



High = 5 V_{DC}

Low = 0 V_{DC}

A	B	out
0v	0v	0 v
0V	5V	0 v
5V	0V	0V
5V	5V	5V

A	B	out
0	0	0
0	1	0
1	0	0
1	1	1

5V = High = 1

0 V = Low = 0

John 3:16
King James Version
16 For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life.