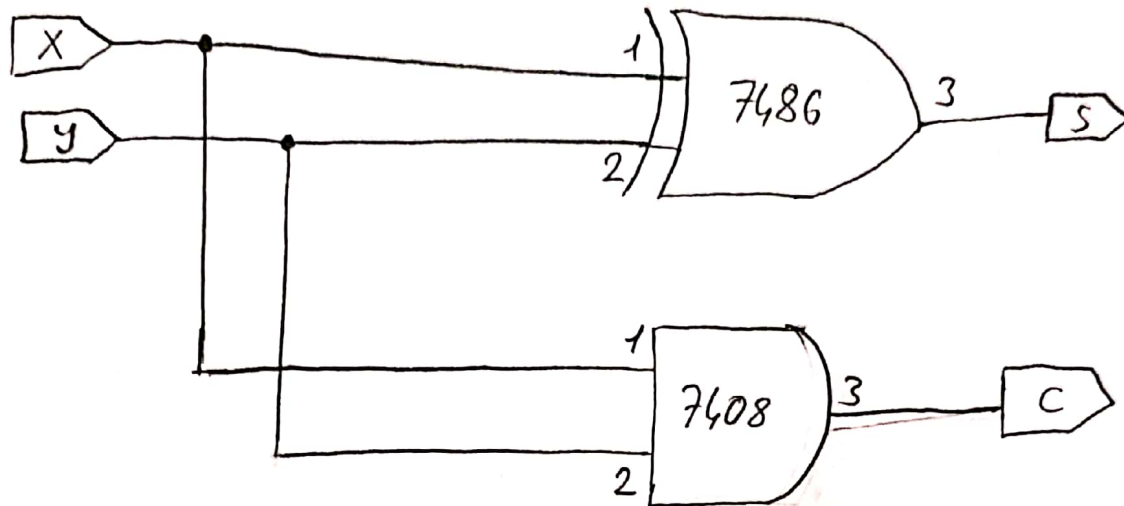


Circuit schematic of Half Adder:



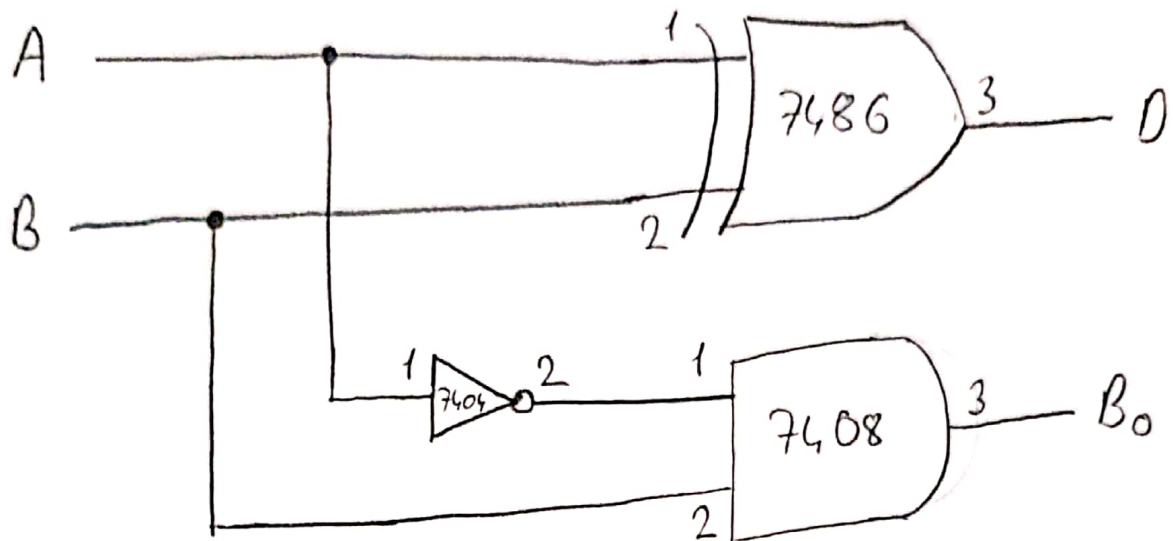
IC List:

- 1) One 7486 Quad 2-input XOR gate
- 2) One 7408 Quad 2-input AND gate

7486
GND - 7
+5V - 14

7408
GND - 7
+5V - 14

Circuit schematic of Half Subtractor;



IC List

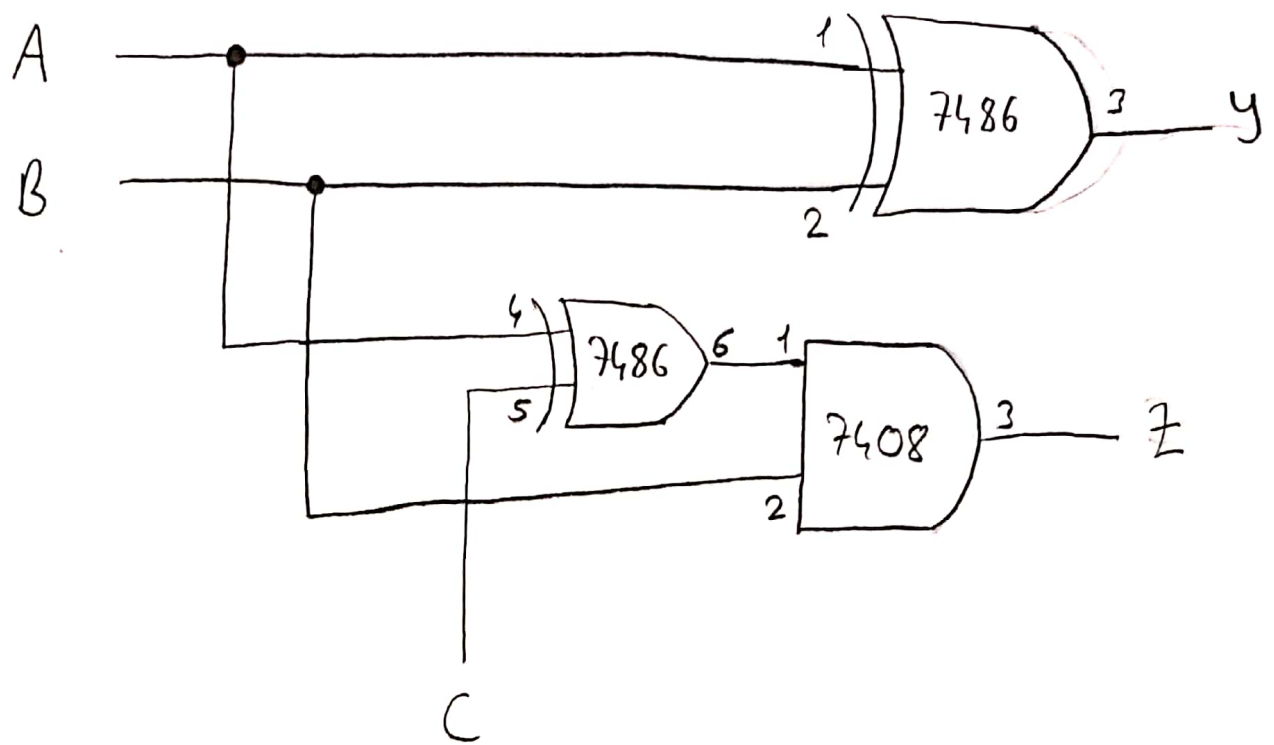
- 1) One 7486 Quad 2-input XOR gate
- 2) One 7408 Quad 2-input AND gate
- 3) One 7404 six INVERTER gate

7486
GND - 7
+5V - 14

7408
GND - 7
+5V - 14

7404
GND - 7
+5V - 14

Circuit schematic for Lab Calculator:



IC List

- 1) Two 7486 Quad 2-input XOR gate
- 2) One 7408 Quad 2-input AND gate

7486
GND - 7
+5V - 14

7408
GND - 7
+5V - 14