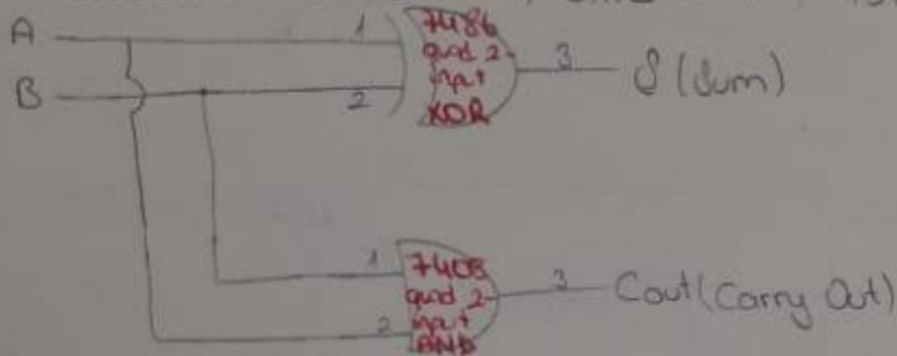


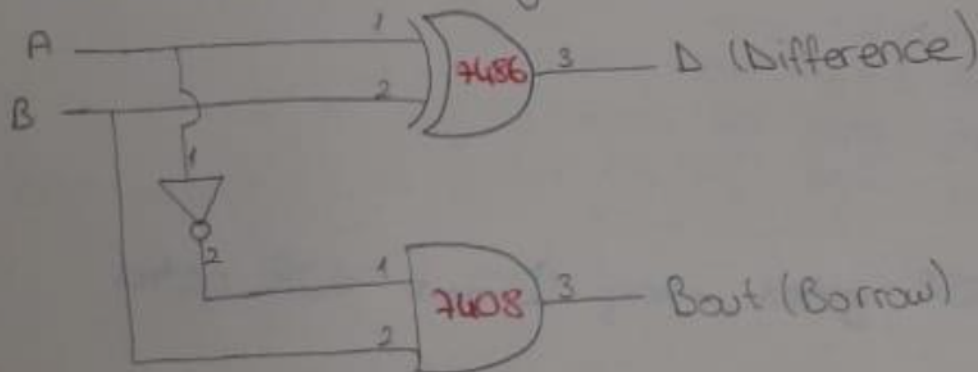
# CS223 LAB 1

## ① Half Adder & Subtractor

Adder: For all gates; GND - 7, +5V - 14

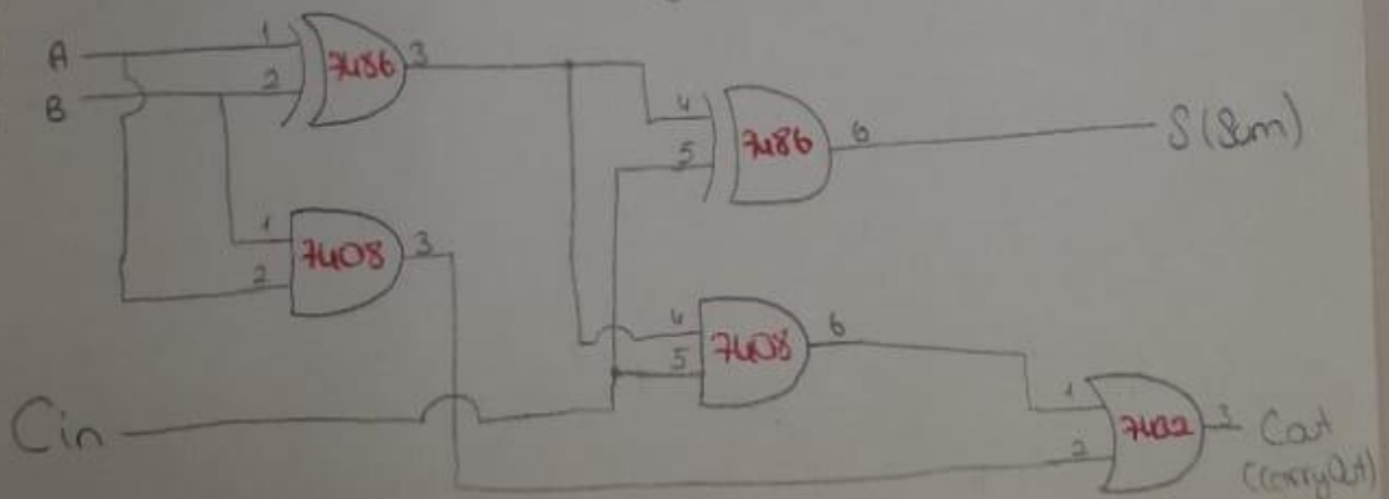


Subtractor: For all gates; GND - 7, +5V - 14

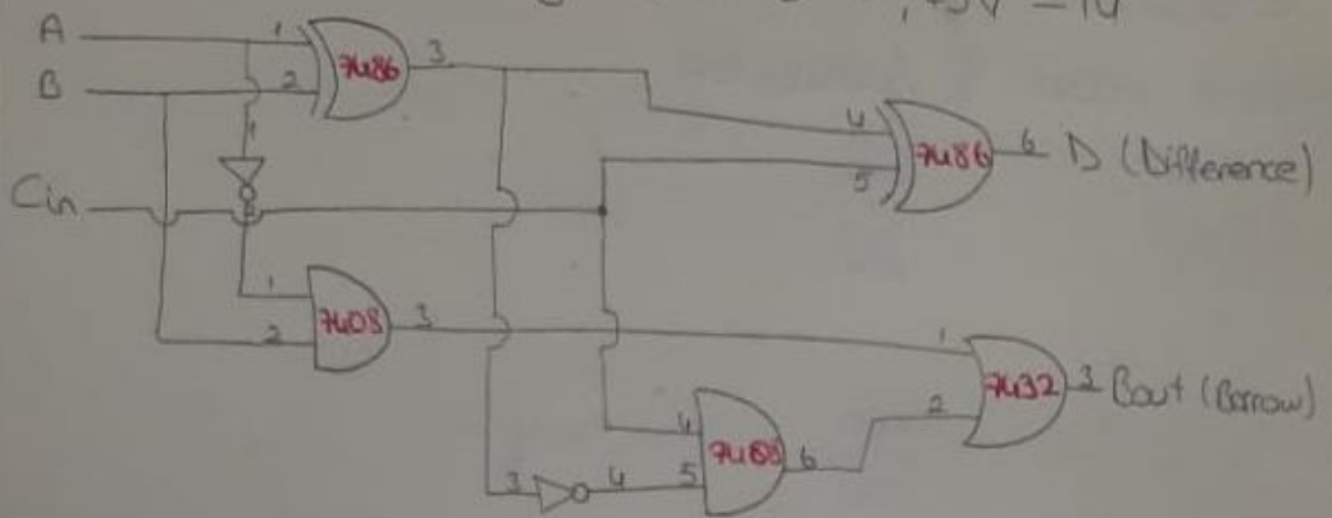


## Full Adder & Subtractor

Adder: For all gates; GND - 7, +5V - 14



Subtractor: For all gates; GND - 7, +5V - 14



Used 74xx-series IC's

7404: Hex Inverter Gate

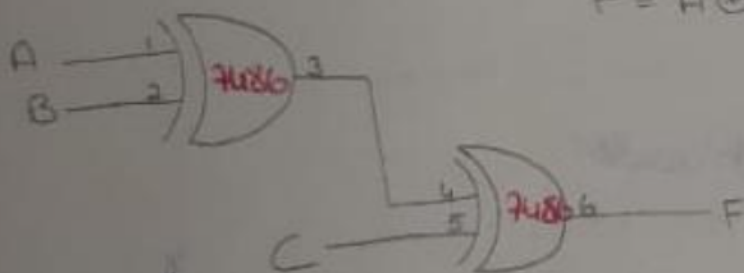
7408: Quad 2-input AND Gate

7432: Quad 2-input OR Gate

7486: Quad 2-input XOR Gate

② 3-input XOR gates, using 2-input XOR gates

$$F = A \oplus B \oplus C$$



(For both gates;  
GND - 7  
+5V - 14)