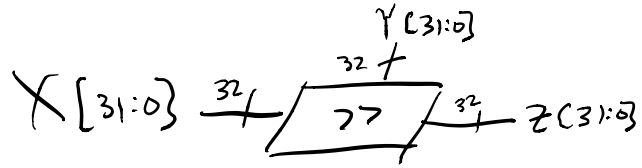


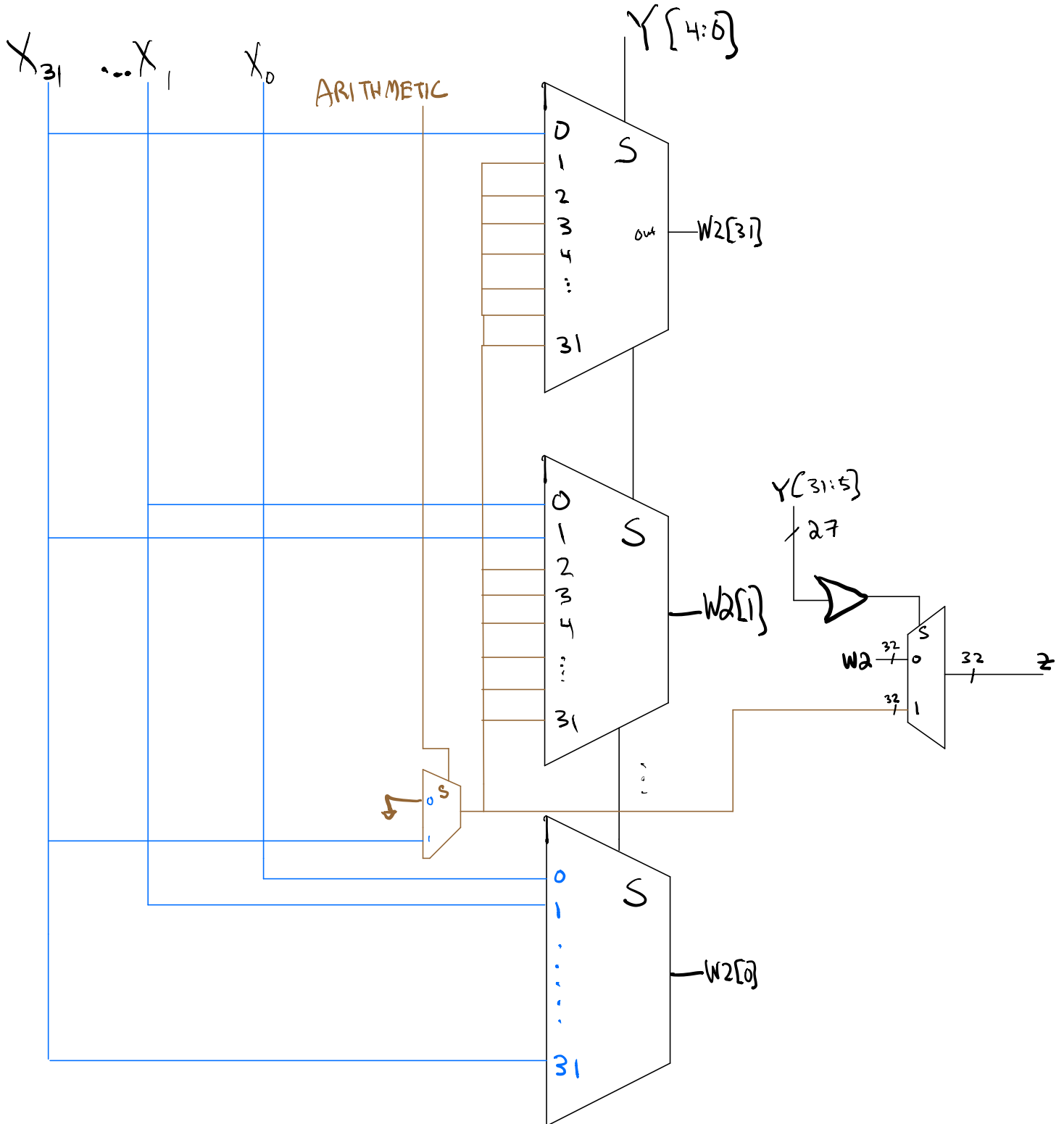
Part 2 - Sketches

Mohib Jafri
Victor Qin

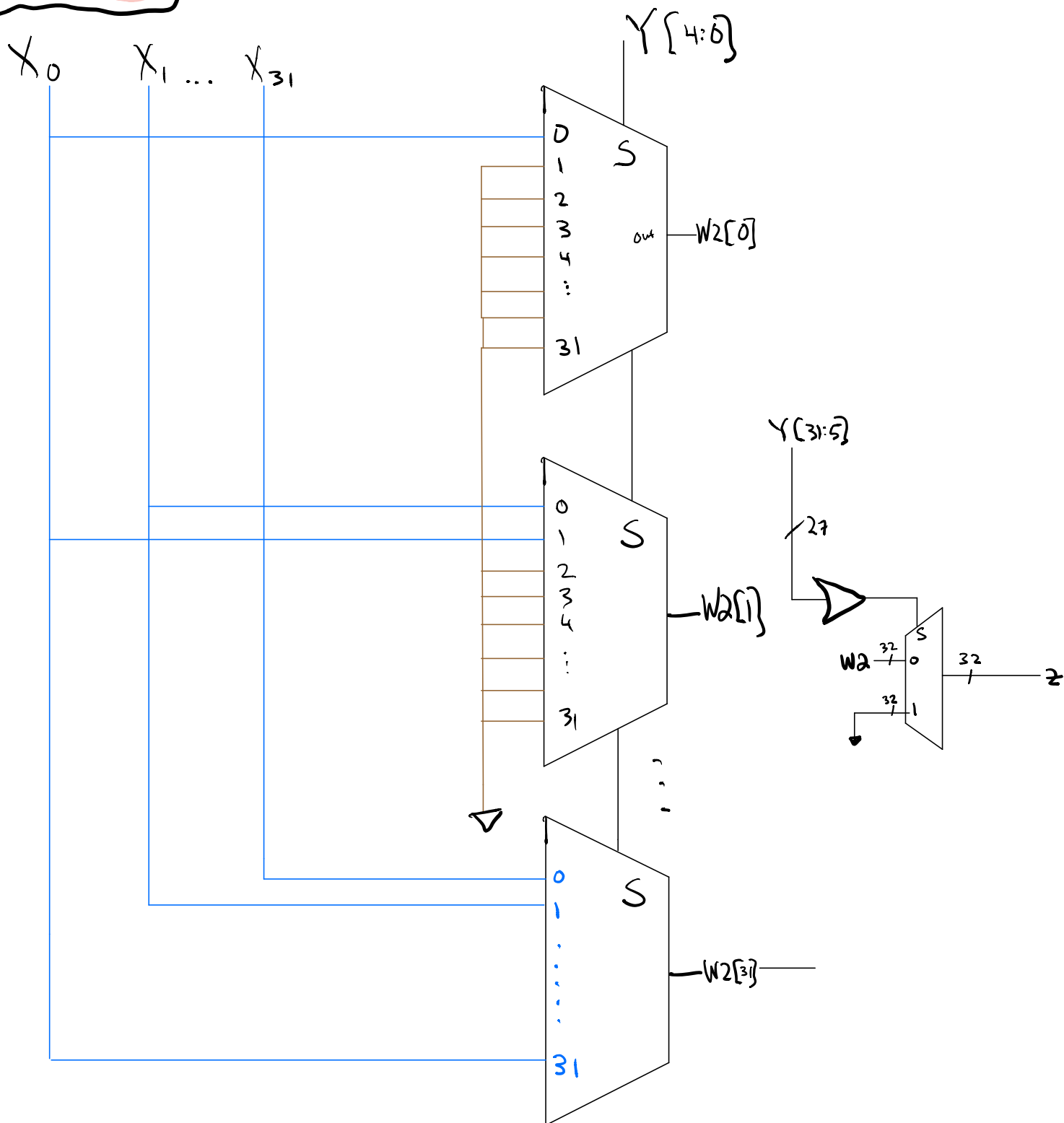
SRL & SRA



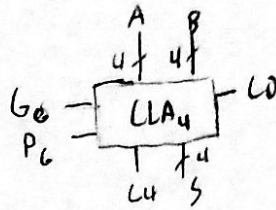
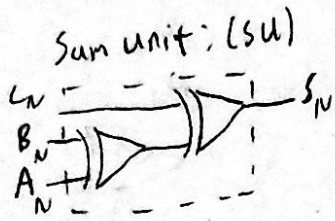
For SRA, set Arithmetic = HIGH, else low.



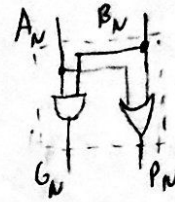
SLL



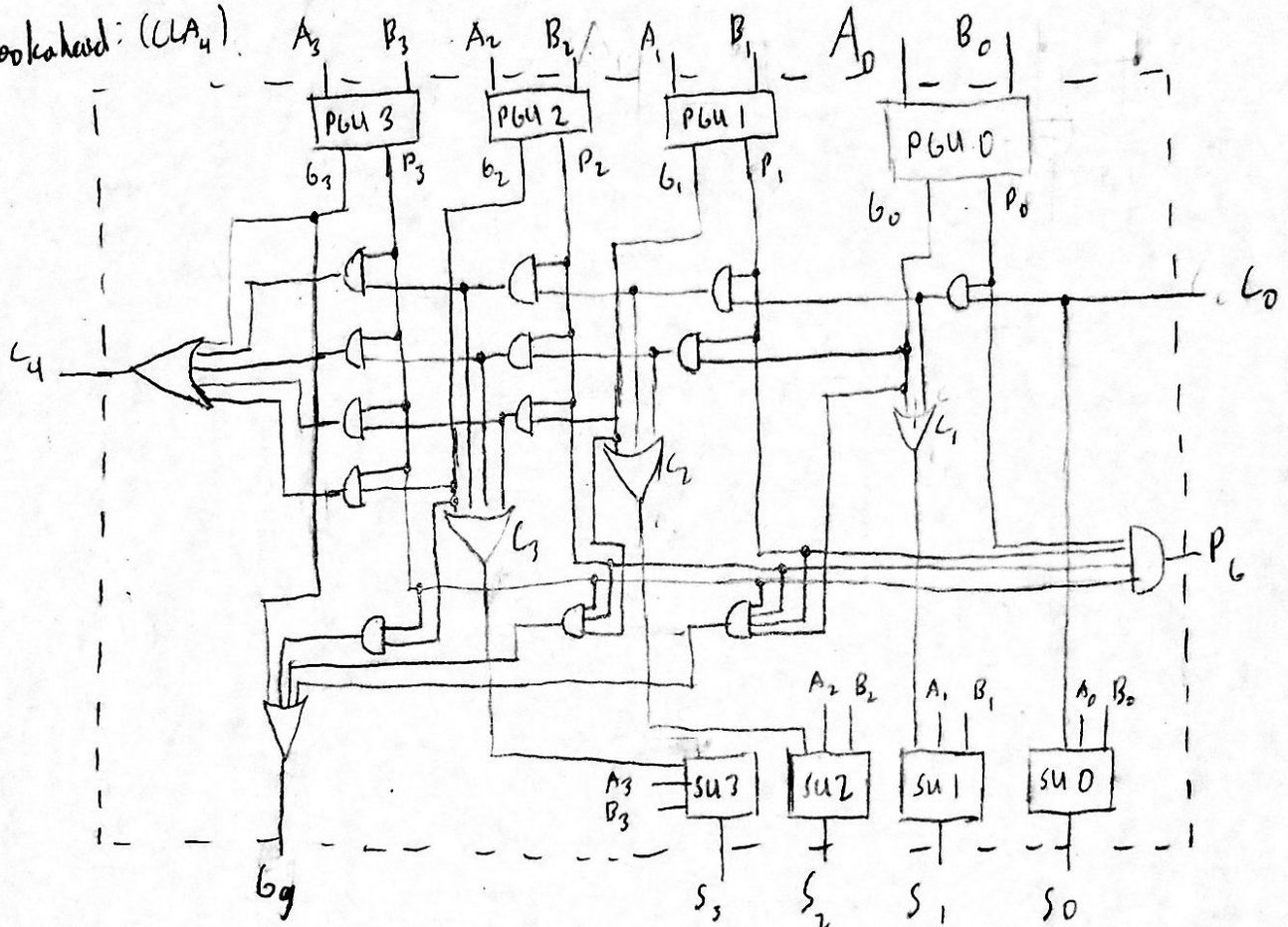
Carry-Lookahead - 4-bit unit



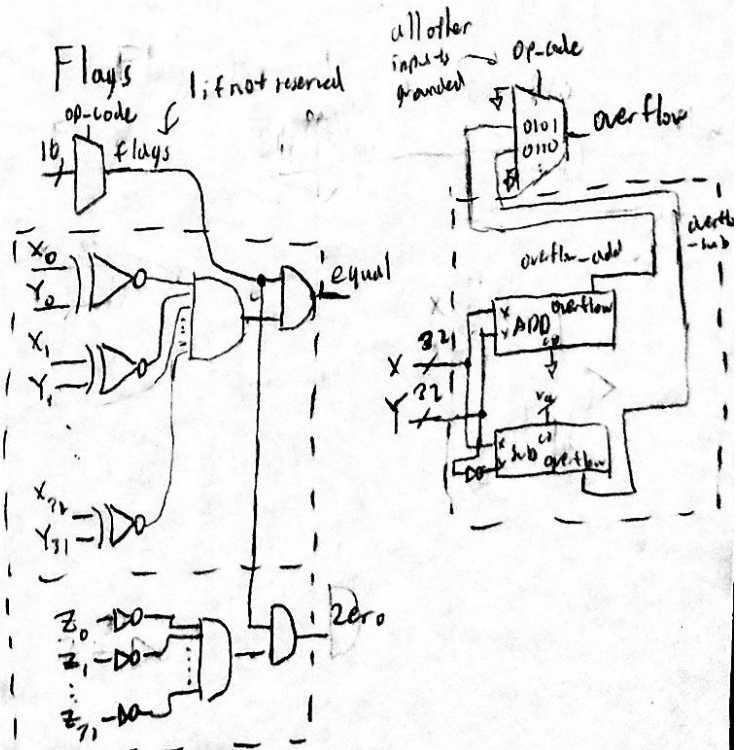
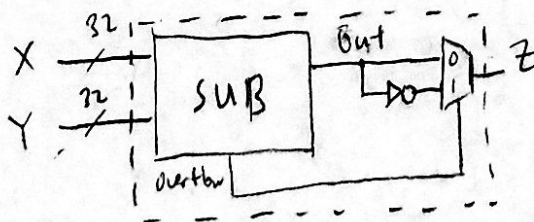
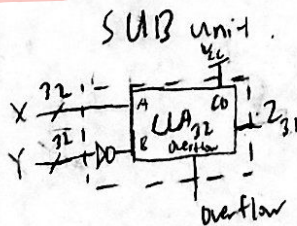
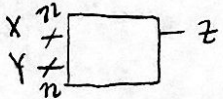
Prop/Gen unit: (PGU)



Carry-Lookahead: (CLA_4)

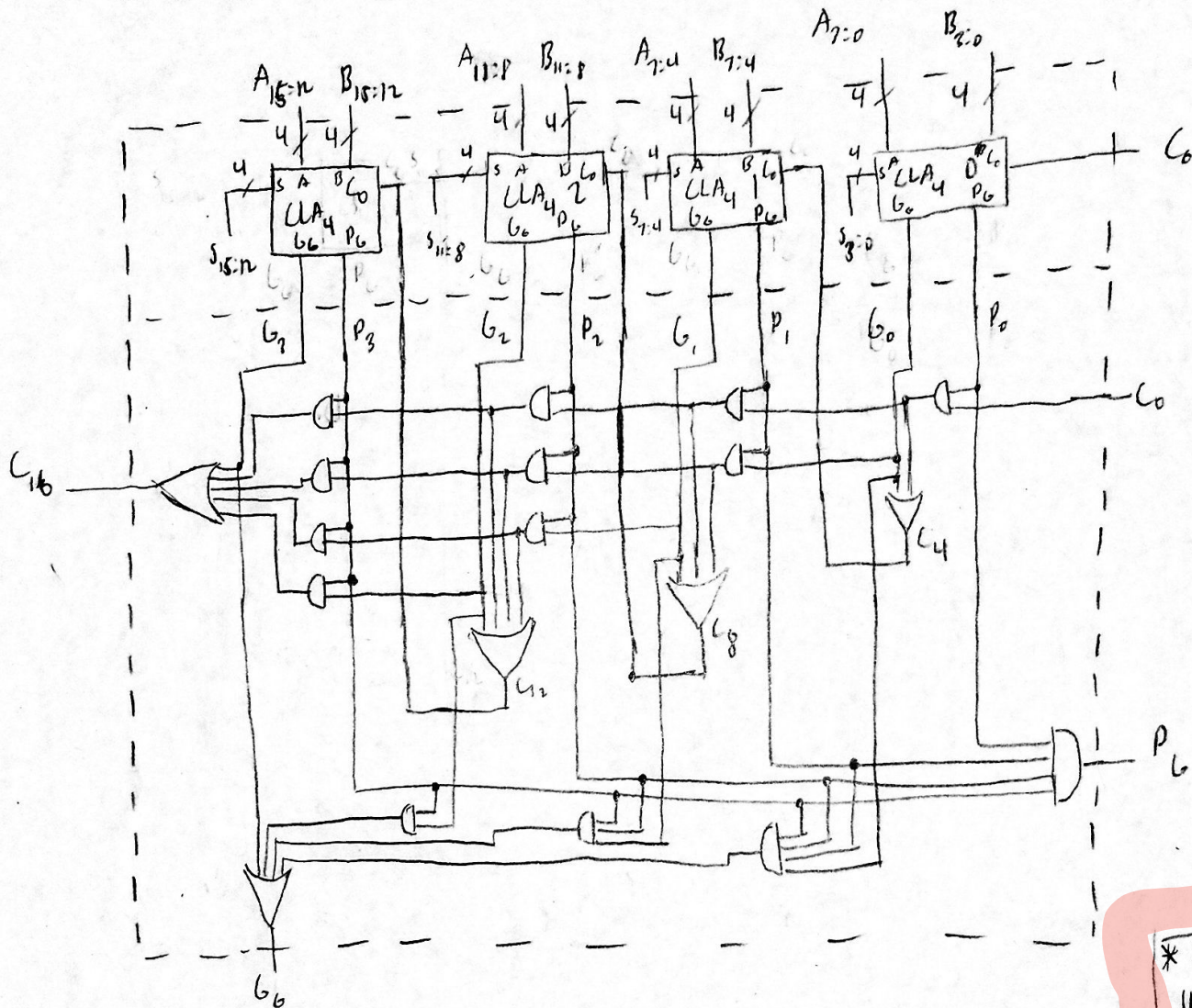
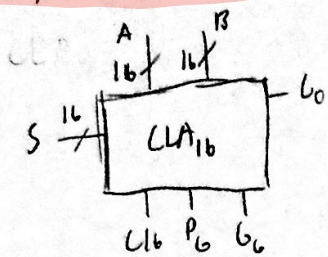


SUT operator (SLT)

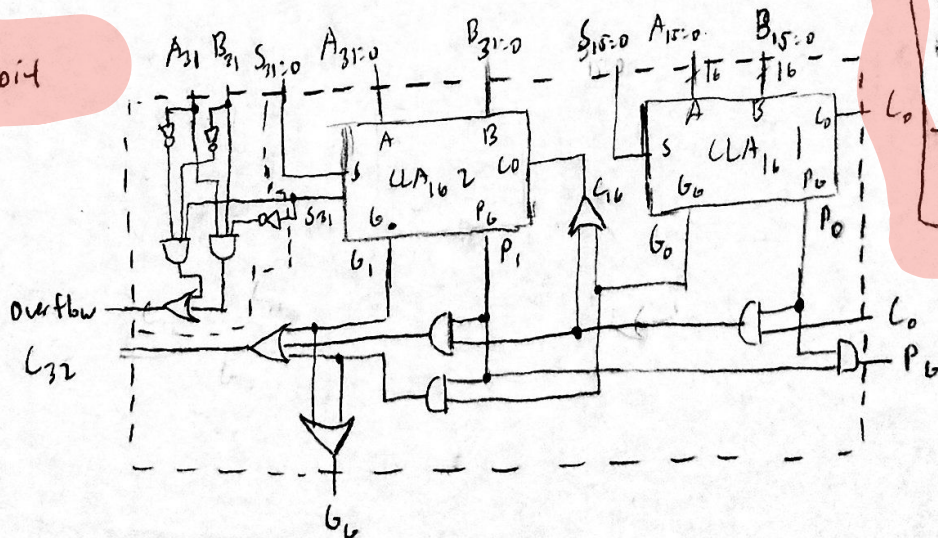
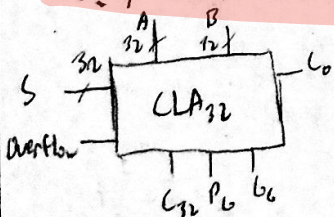


Carry-lookahead-16-bit (CLA₁₆)

Note: $A_{N:M}$ = bus of A_N, A_{N-1}, \dots, A_M



Carry-lookahead 32-bit



* NOTE: Subtractor
Use a CLA₃₂ -
for $X-Y, C_0=1$
 $A=X, B=\bar{Y}$
see sub unit
on other page