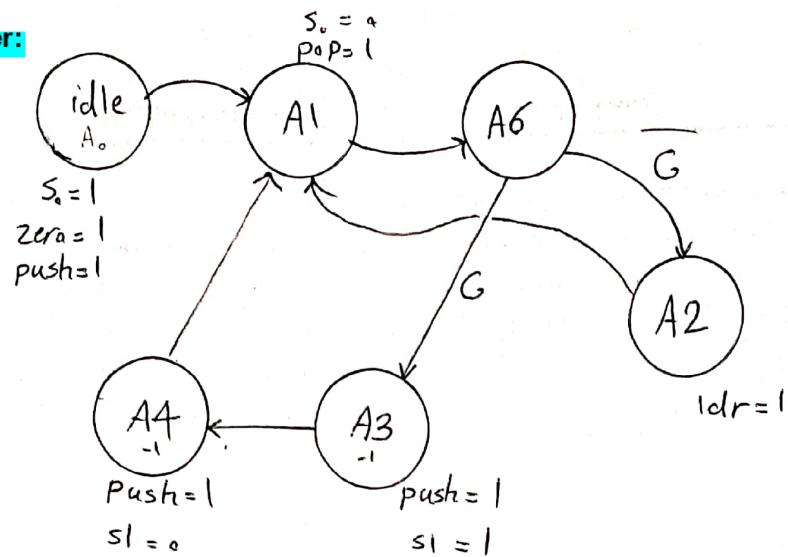


ntroller:



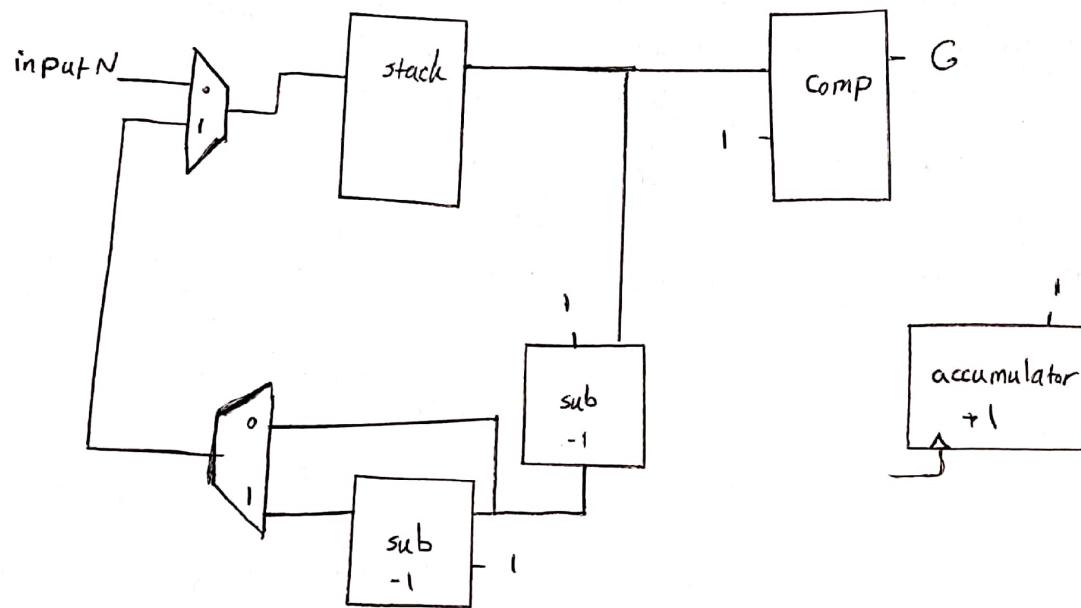
Narges Gholami

AI019NFFV

Sara - rezaeimaneesh

AI019A0V9

datapath:



A	B	C	G	A'	B'	C'	push	pop	top	S1	S0	zero	ldr
0	0	0	0,1	0	0	1	1	0	0	0	0	1	0
1	0	0	1	0,1	1	1	0	0	1	0	0	0	1
1	0	1	0,1	0	0	1	0	0	0	1	0	0	0
1	0	1	1	0,1	1	0	0	1	0	0	0	0	0
1	1	0	0,1	0	0	1	0	1	0	0	0	0	0
1	1	0	0	0	1	0	0	0	0	0	0	0	0
1	1	1	0	0	1	1	0	0	0	0	0	0	0
1	1	1	1	0	1	1	0	0	0	0	0	0	0

		A'				
		00	01	11	10	
CG		00	0	0	0	0
		01	0	0	0	0
		11	1	1	0	0
		10	1	1	0	0

$$A' = C \cdot \bar{A}$$

		B'				
		00	01	11	10	
CG		00	0	0	1	0
		01	0	0	1	0
		11	1	0	0	0
		10	1	0	0	0

$$B' = \bar{A} \cdot \bar{B} \cdot C + A \cdot \bar{B} \cdot \bar{C}$$

		C'				
		00	01	11	10	
CG		00	1	1	1	1
		01	1	1	1	1
		11				
		10				

$$C' = \bar{A} \cdot \bar{C} + \bar{B} \cdot \bar{C} + \bar{C} \cdot G$$

		AB				
		00	01	11	10	
CG		00	1	0	·	1
		01	1	0	·	1
		11	1	0	·	1
		10	1	0	·	1

$$\text{push} = \bar{A} \cdot \bar{C} \cdot B + \bar{B} \cdot \bar{C}$$

		AB				
		00	01	11	10	
CG		00	·	·	·	·
		01	·	·	·	·
		11	1	0	1	1
		10	1	0	1	0

$$\text{pop} = \bar{A} \cdot \bar{B} \cdot C$$

		AB				
		00	01	11	10	
CG		00	1	·	·	·
		01	1	·	·	·
		11	·	·	·	·
		10	·	·	·	·

$$\text{zero} = \bar{A} \cdot \bar{B} \cdot \bar{C}$$

		AB				
		00	01	11	10	
CG		00	1	·	·	·
		01	1	·	·	·
		11	·	·	·	·
		10	·	·	·	·

$$\text{ldr} = \bar{A} \cdot B \cdot \bar{C}$$

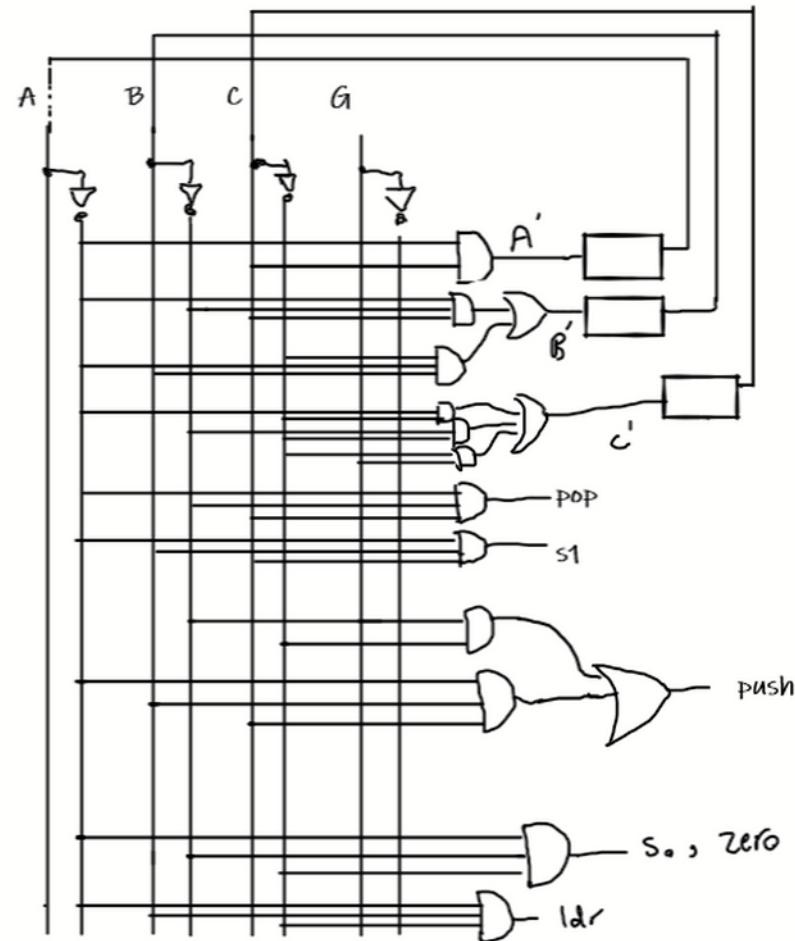
		AB				
		00	01	11	10	
CG		00	1	·	·	·
		01	1	·	·	·
		11	·	·	·	·
		10	·	·	·	·

$$\text{so} = \bar{A} \cdot \bar{B} \cdot \bar{C}$$

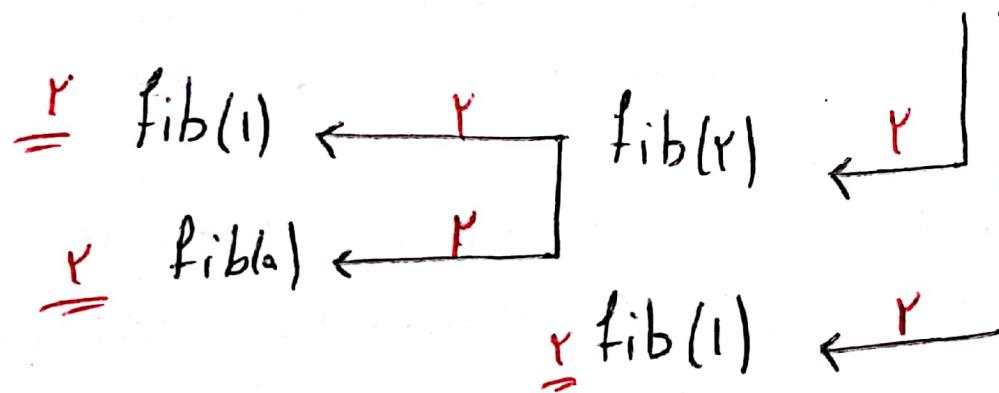
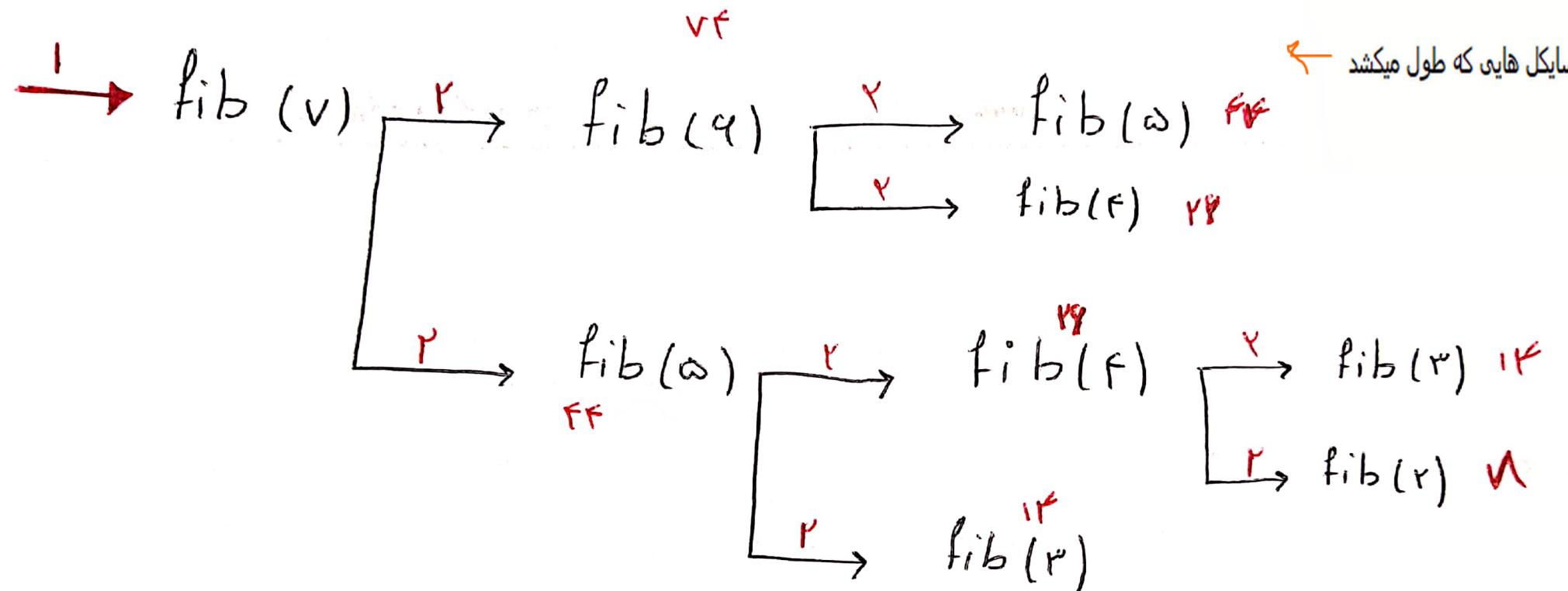
		AB				
		00	01	11	10	
CG		00	·	·	·	·
		01	·	·	·	·
		11	·	·	·	·
		10	·	·	·	·

$$s_1 = \bar{A} \cdot B \cdot C$$

controller

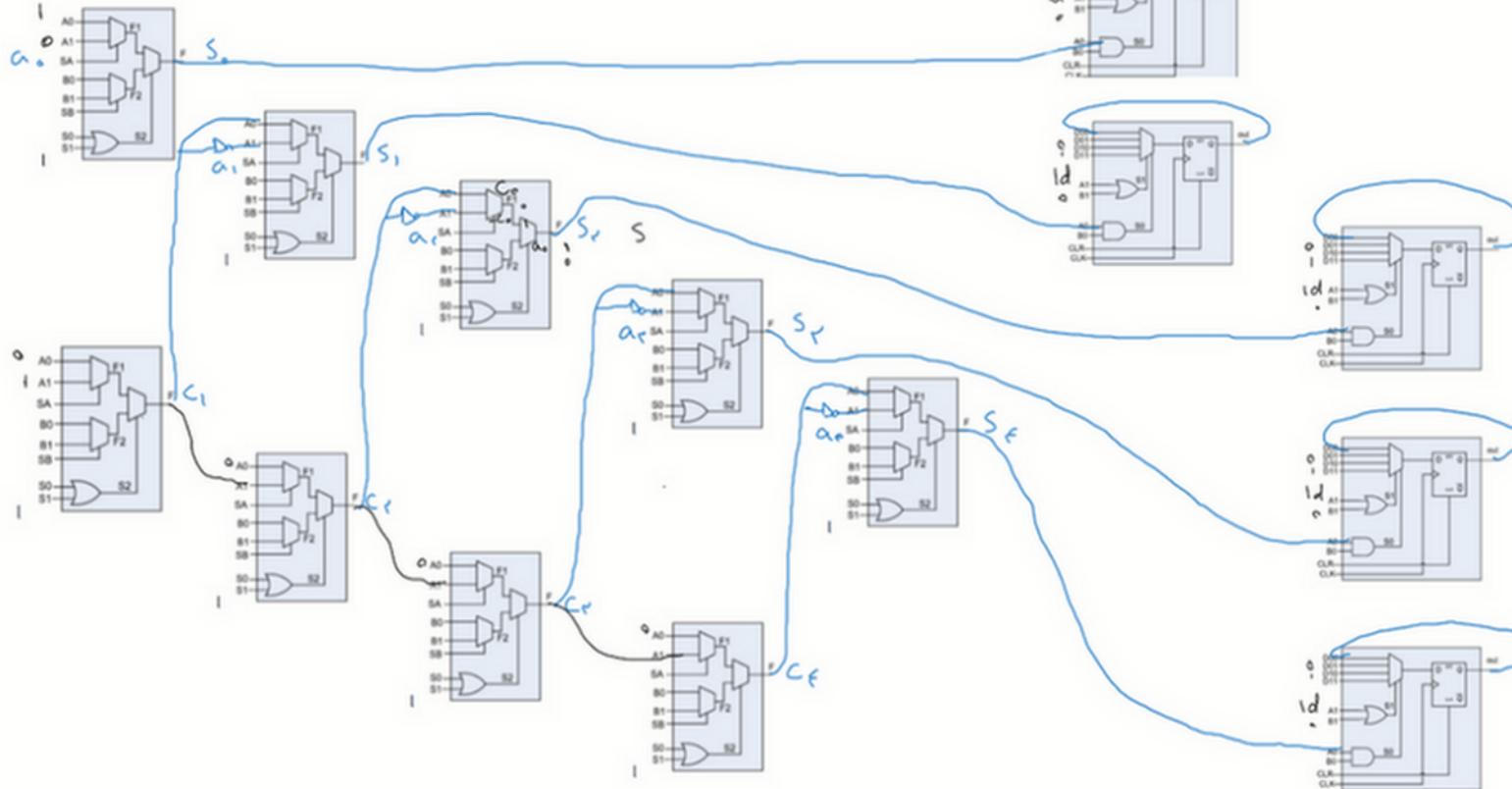


تعداد کل سایکل هایی که طول میکشد



۱۲۴
کل سطح صلیب است

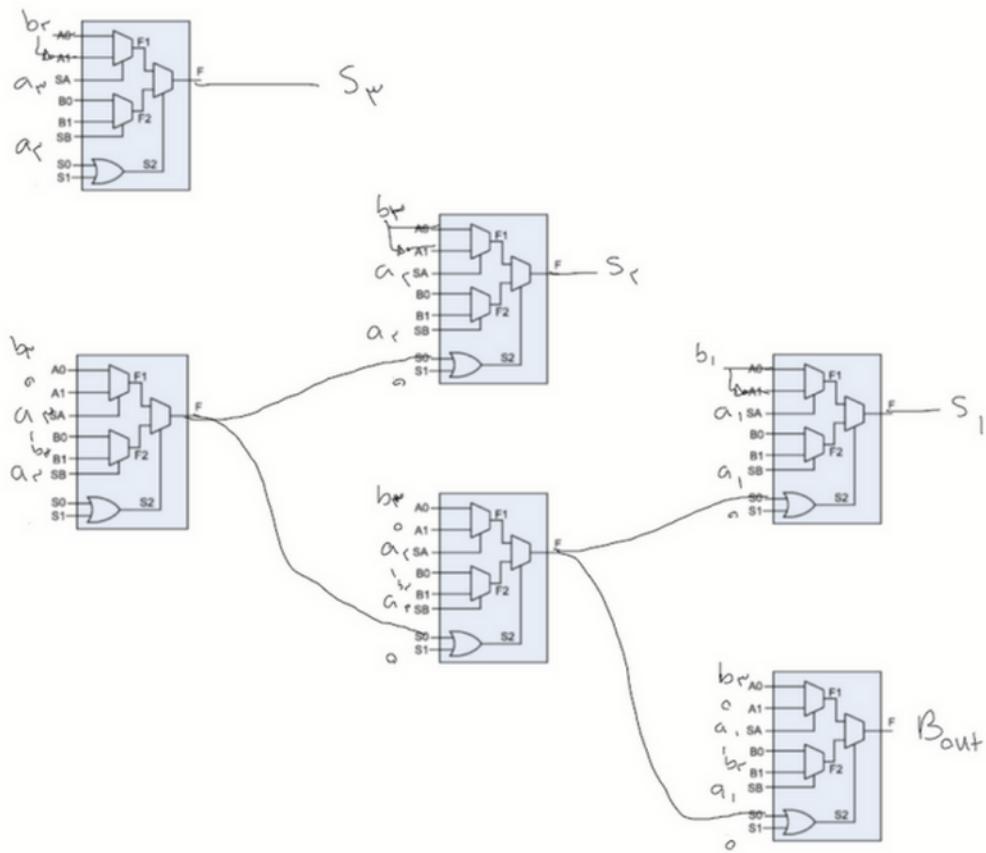
accumulate



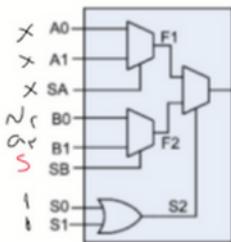
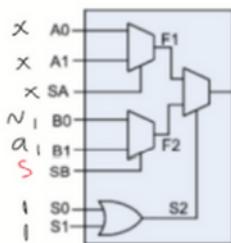
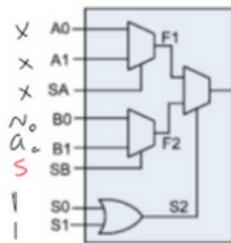
از کشیدن گیت نات به عملت شلوغی درجی تحریف نظر شده است

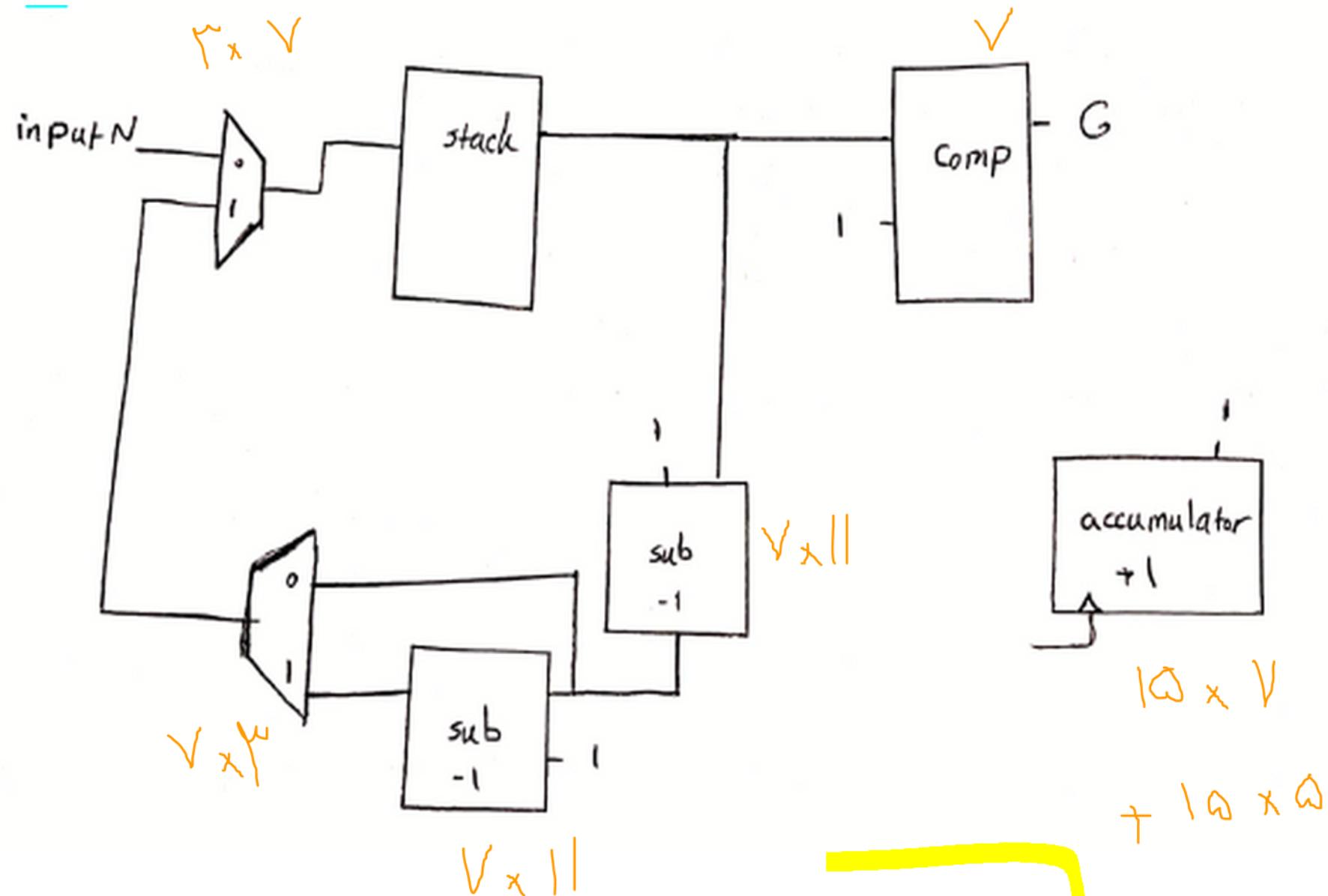
critical path is: $22.5 \rightarrow$ is related to accumulator

subtractor



multiplexer





area:

$\Sigma \Lambda \Sigma$

