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Step 1 : Determine mux size

load, swap, clear (load all 0s)

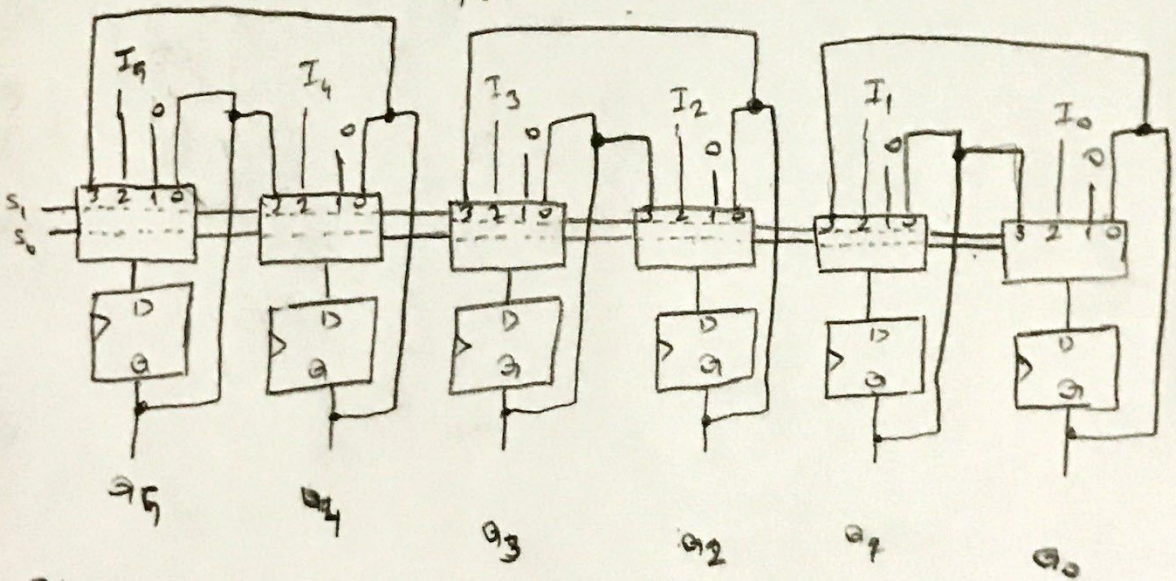
4 operations: above, plus maintain present value.

- Use 4x1 mux

Step 2 : Create mux operation table

S_1	S_0	Operations
0	0	maintain present value.
0	1	Clear
1	0	Load
1	1	Swap

Step 3 : Connect mux input



Step 4: Map control lines

Input			Output		Operation
clr	load	swap	Q_1	Q_0	
0	0	0	0	0	maintain present value
1	0	0	0	1	clear
X	1	0	1	0	Load
X	X	1	1	1	Swap

$Q_1 = load * swap' + Swap$

$Q_0 = clr * load' * swap' + swap$