

TASK

Date : 03-03-2025

Let's consider this path:

Mon Mar 3 11:06 PM

preethi-grace@HP-245-G7-Notebook: ~/Downloads/SURE TRUST/project/WEEK_1_ASSIGNMENT

Startpoint: _268_ (rising edge-triggered flip-flop clocked by core_clock)
Endpoint: _268_ (rising edge-triggered flip-flop clocked by core_clock)
Path Group: core_clock
Path Type: max

Fanout	Cap	Slew	Delay	Time	Description
			0.00	0.00	clock core_clock (rise edge)
			0.00	0.00	clock source latency
1	0.01	0.00	0.00	0.00	^ clk (in)
					clk (net)
		0.00	0.00	0.00	^ clkbuf_0_clk/A (sky130_fd_sc_hd__clkbuf_16)
8	0.06	0.08	0.14	0.14	^ clkbuf_0_clk/X (sky130_fd_sc_hd__clkbuf_16)
					clknet_0_clk (net)
		0.08	0.00	0.14	^ clkbuf_3_7__f_clk/A (sky130_fd_sc_hd__clkbuf_16)
10	0.03	0.05	0.15	0.29	^ clkbuf_3_7__f_clk/X (sky130_fd_sc_hd__clkbuf_16)
					clknet_3_7__leaf_clk (net)
		0.05	0.00	0.29	^ _268_/CLK (sky130_fd_sc_hd__dfrrtp_1)
2	0.01	0.05	0.37	0.66	v _268_/Q (sky130_fd_sc_hd__dfrrtp_1)
					dsa[0].last_carry (net)
		0.05	0.00	0.66	v _186_/C (sky130_fd_sc_hd__and3_1)
1	0.00	0.03	0.17	0.83	v _186_/X (sky130_fd_sc_hd__and3_1)
					094 (net)
		0.03	0.00	0.83	v _187_/A (sky130_fd_sc_hd__clkbuf_1)
2	0.01	0.04	0.10	0.93	v _187_/X (sky130_fd_sc_hd__clkbuf_1)
					dsa[0].last_carry_next (net)
		0.04	0.00	0.93	v _268_/D (sky130_fd_sc_hd__dfrrtp_1)
				0.93	data arrival time
			10.00	10.00	clock core_clock (rise edge)
			0.00	10.00	clock source latency

We can see the nets present in the circuit in the picture below.

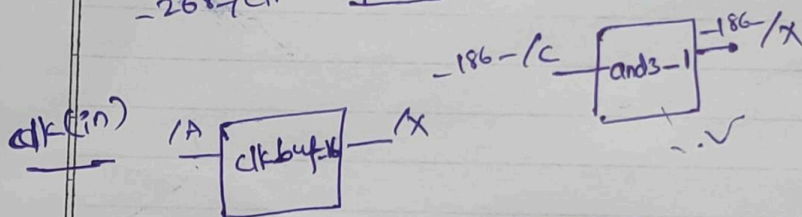
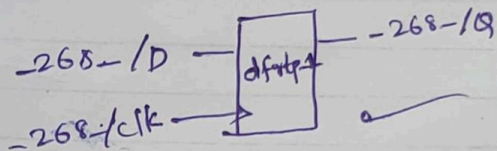
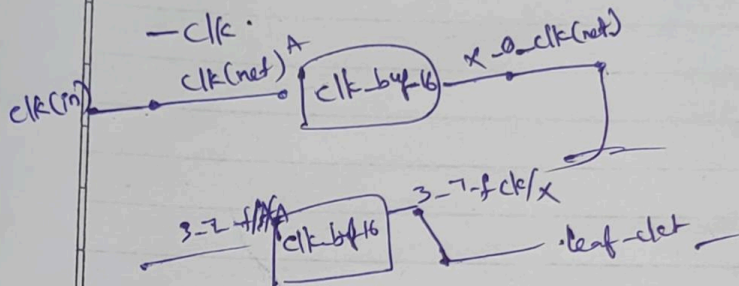
consider

Task

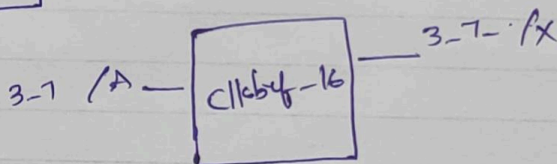
3-3-2015

Start point : - 268 -

End point : - 268 -

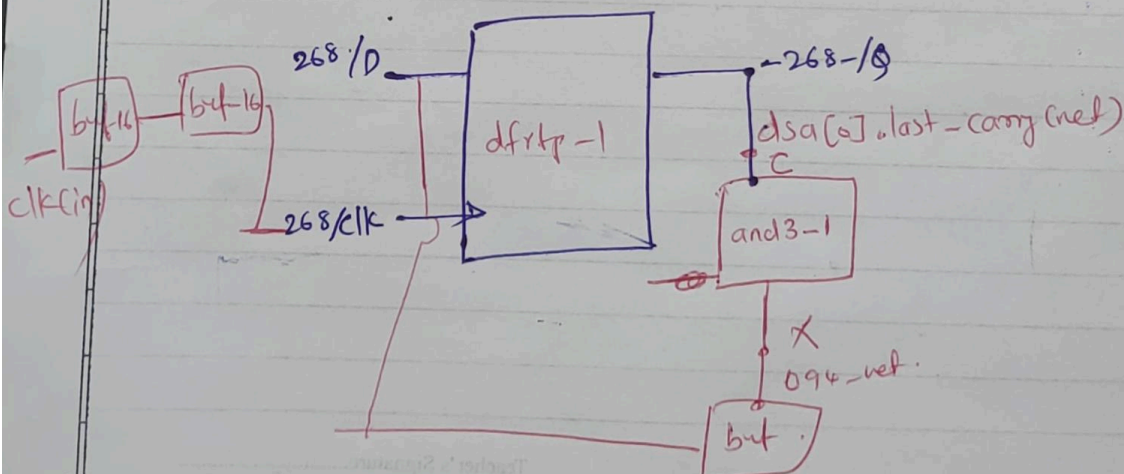


clk-buf-1.



d-2

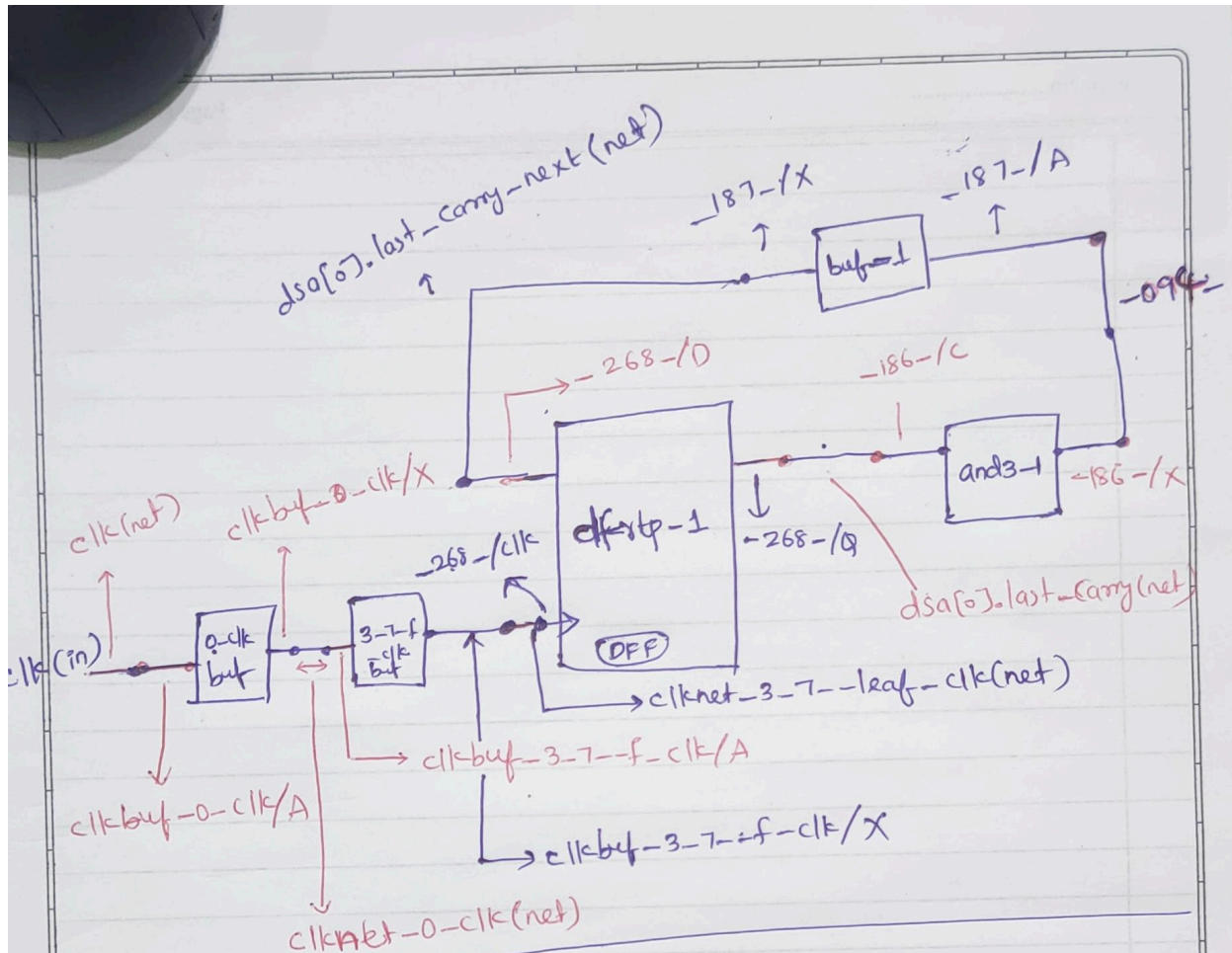
268-



Here we have the circuit diagram which is between the points

startpoint : _268_

endpoint : _268_



we have 1 DFF with $\rightarrow D \rightarrow 265-/D$
 $clk \rightarrow 268-/clk$
 $o/p \rightarrow Q \rightarrow 268-/Q$ } sky130-fd-sc-hd-df7tp-1

1 3 input and gate \rightarrow input A and B not listed in this timing file.

$C \rightarrow 186-/C$
output $\rightarrow 186-/X$

we have 3 buffers to meet the timing of skew