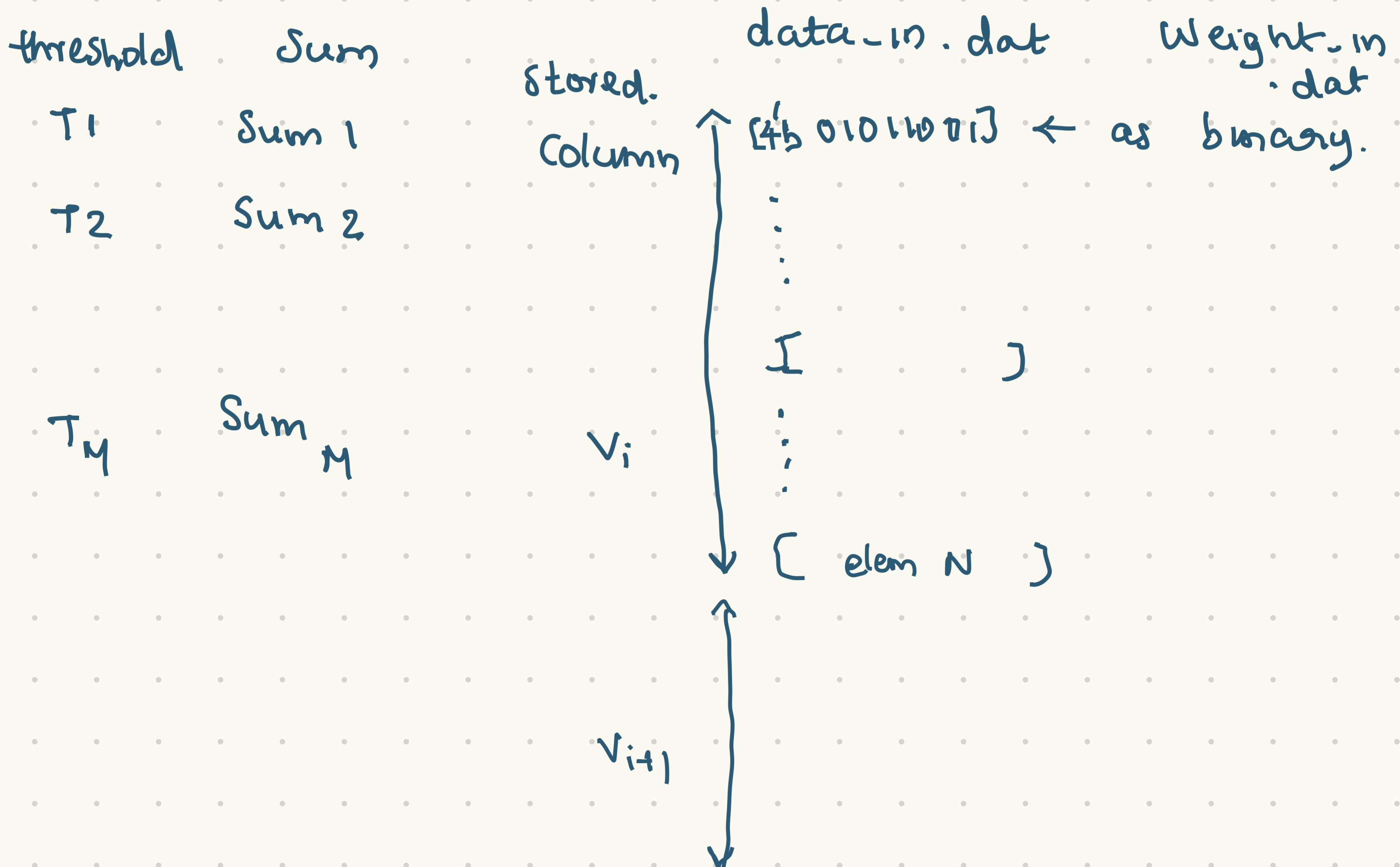


Tasks

$y = \sum_{i=1}^N \text{dataIn}[i] * \text{weight}[i]$.
parameter inputs.

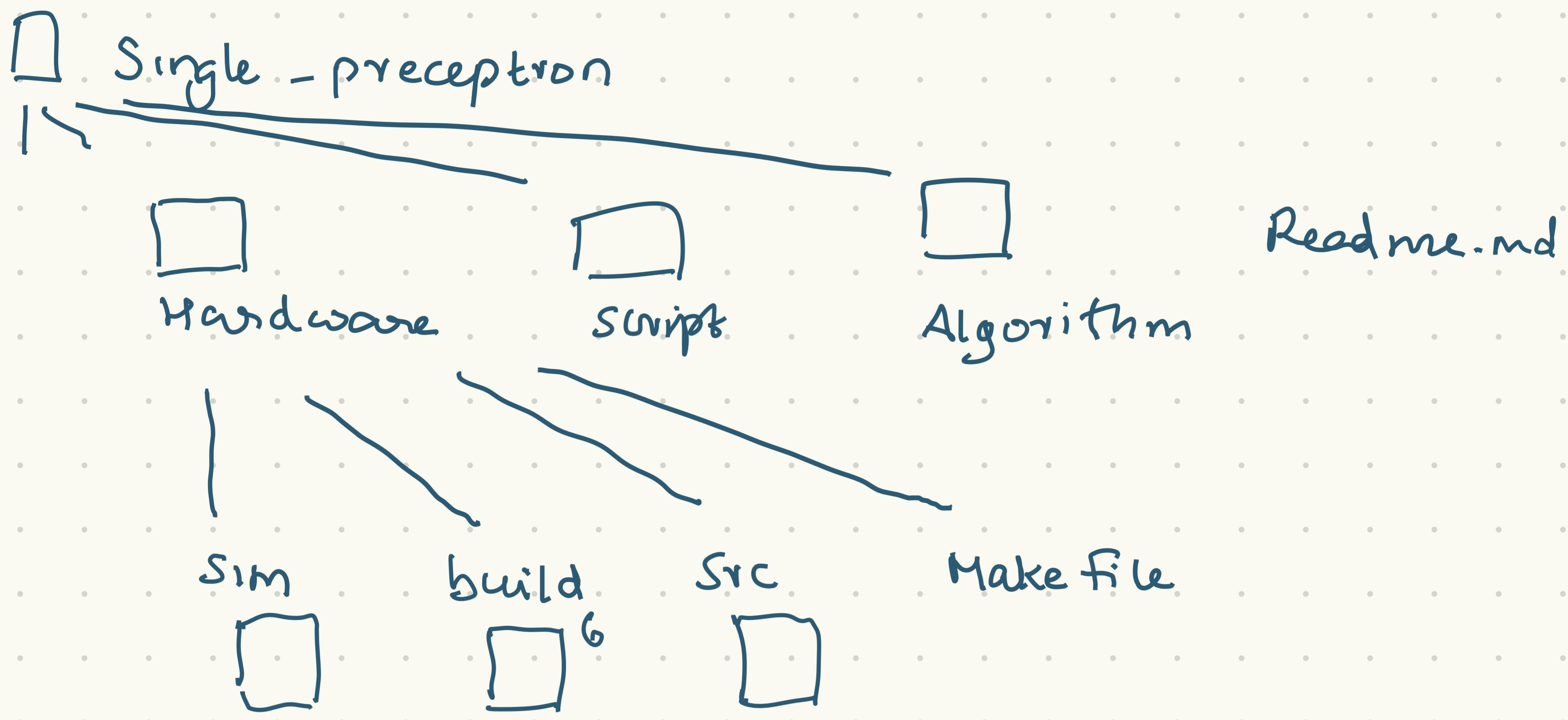
- i) data-in-width
- ii) weight width.
- iii) vector length.
- iv) number of vector samples M

Output files



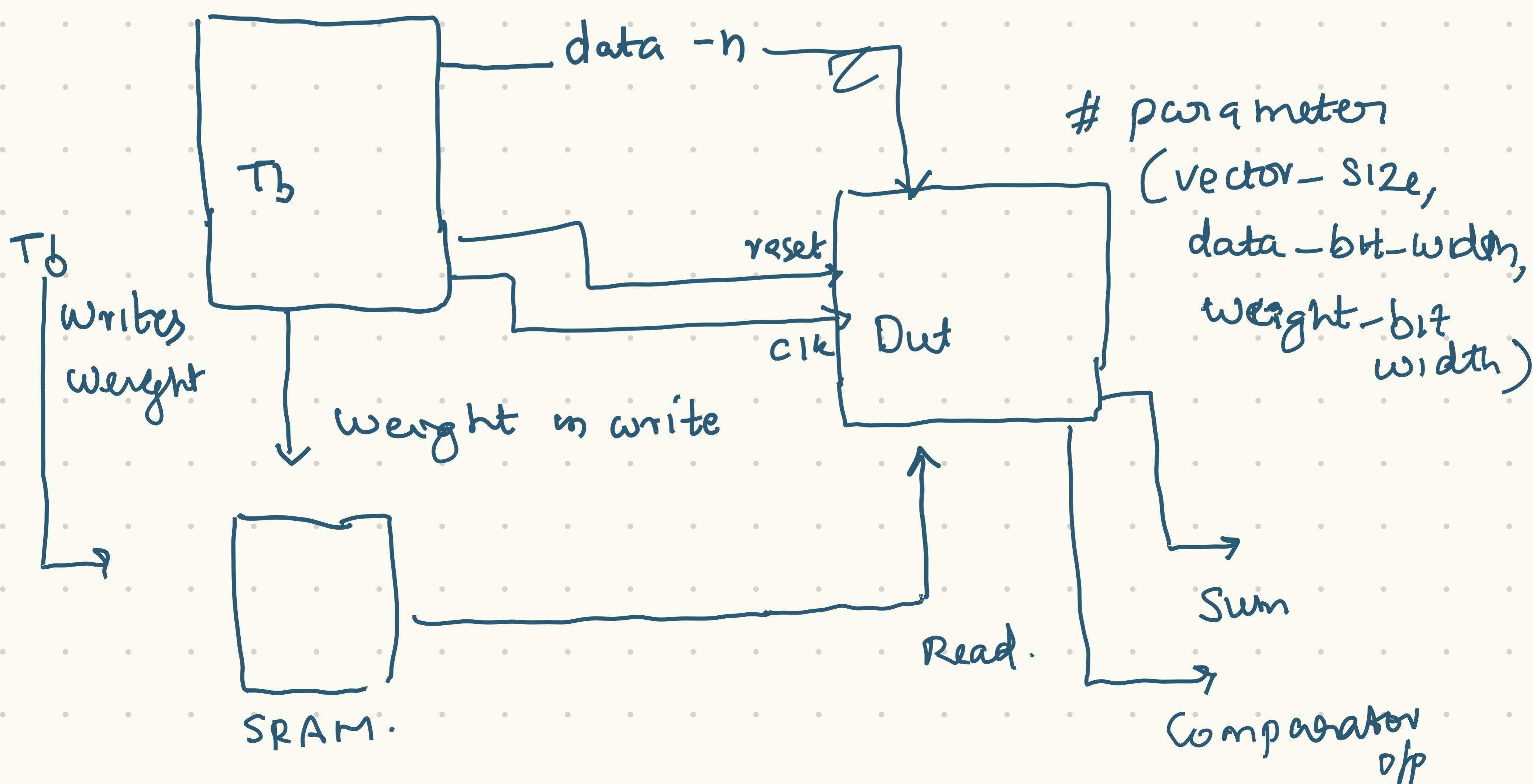
Algorithm Output.

- 1) DIn - VSWN - 64 - 8 - 5 - WW - 8.dat → decimal
- 2) Weight - VSWN - 64 - 8 - 5 - WW - 8.dat → decimal.
- 3) Threshold - result - VSWN - 64 - 8 - 5 - WW - 8.dat → decimal, decimal, decimal



git clone : → to download.

Top Architecture



+b

Step 1

generate : clk and reset.

test bench termination condition

check
compile &
run flow!

Step 2

write weights to SRAM

↓
mem-w-en = 1

+b → mem-w-data

↳ mem-addr.

If wen = 1 , +b drives mem-addr.

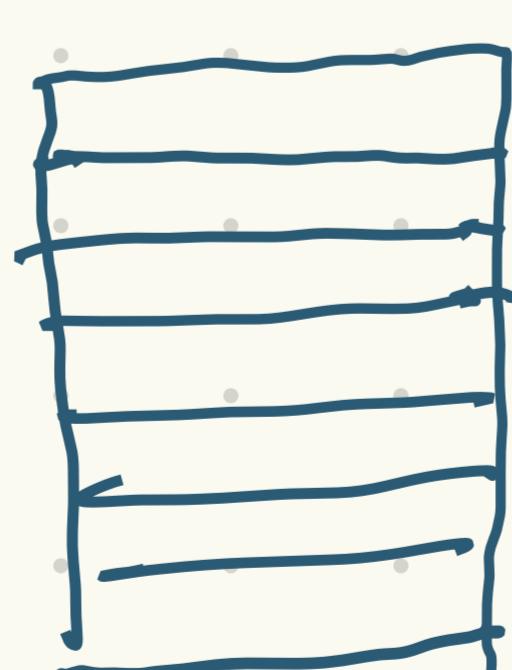
Step 3

drive data to DUT.

1b cc \rightarrow 64.

→ 4 data.
→
→
→

4:1 gen.



consumes only
one.

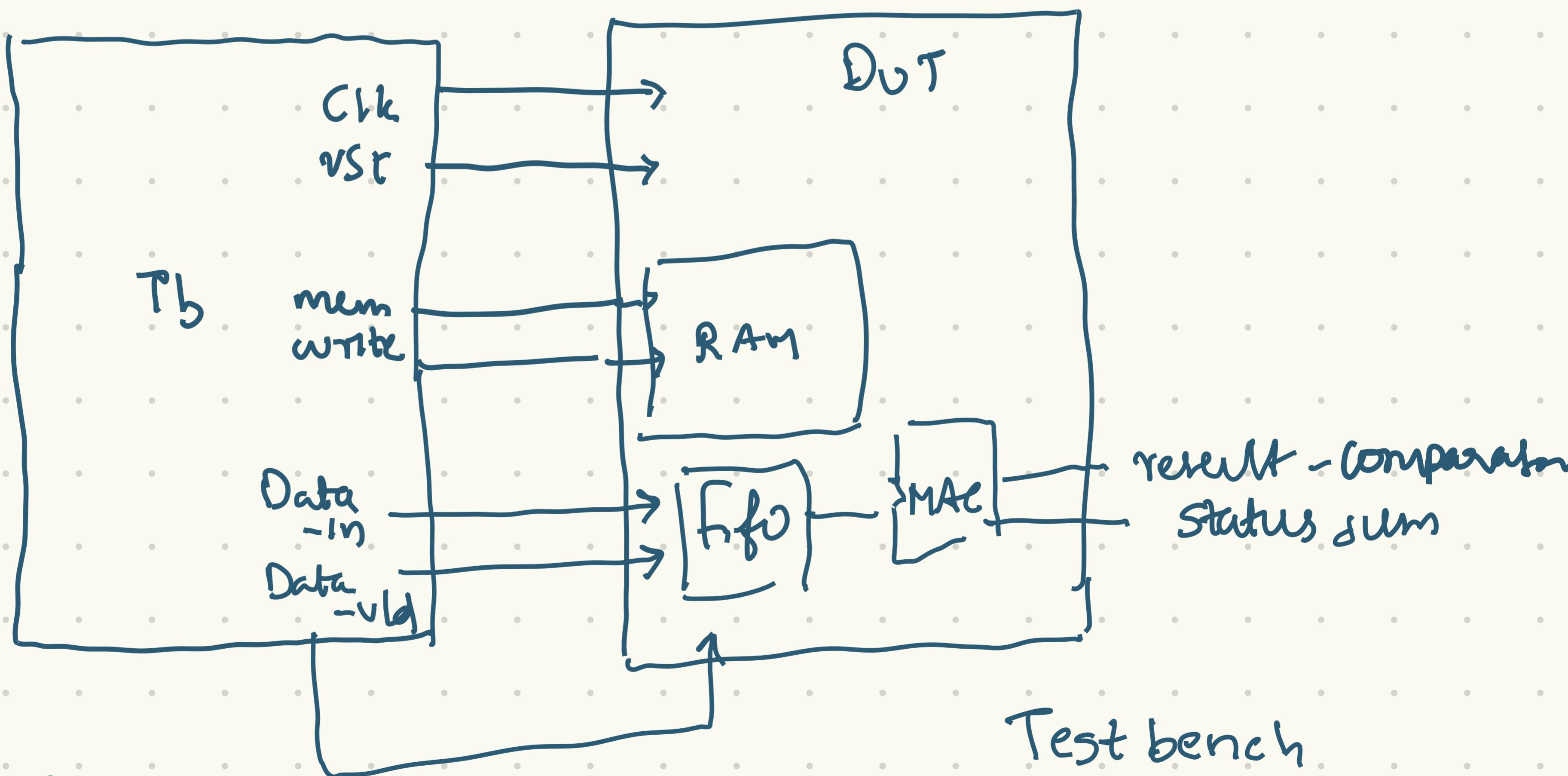
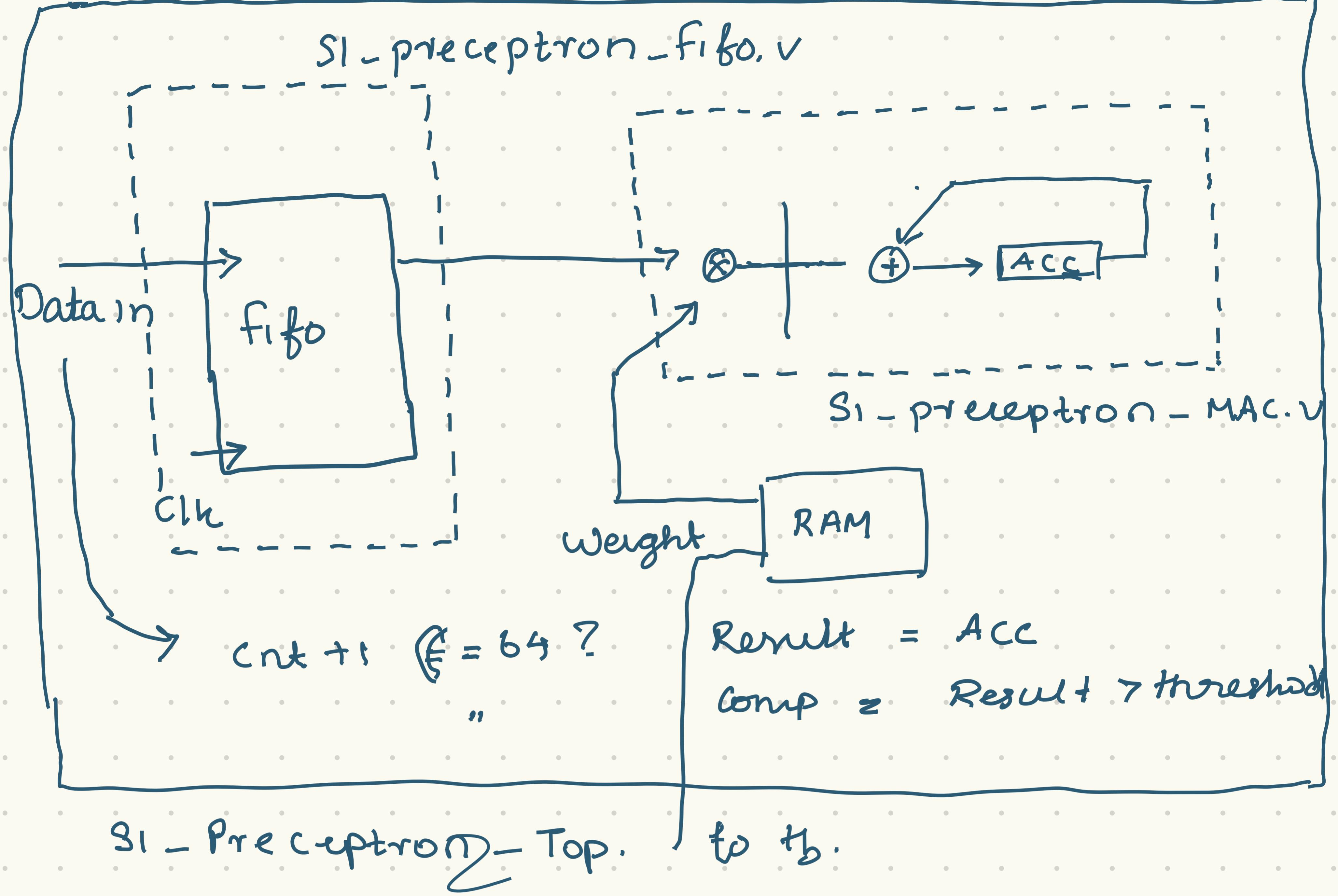
4

3 data execs in each cc.

3

6

$3 \times 16 \rightarrow .48$



Main functions

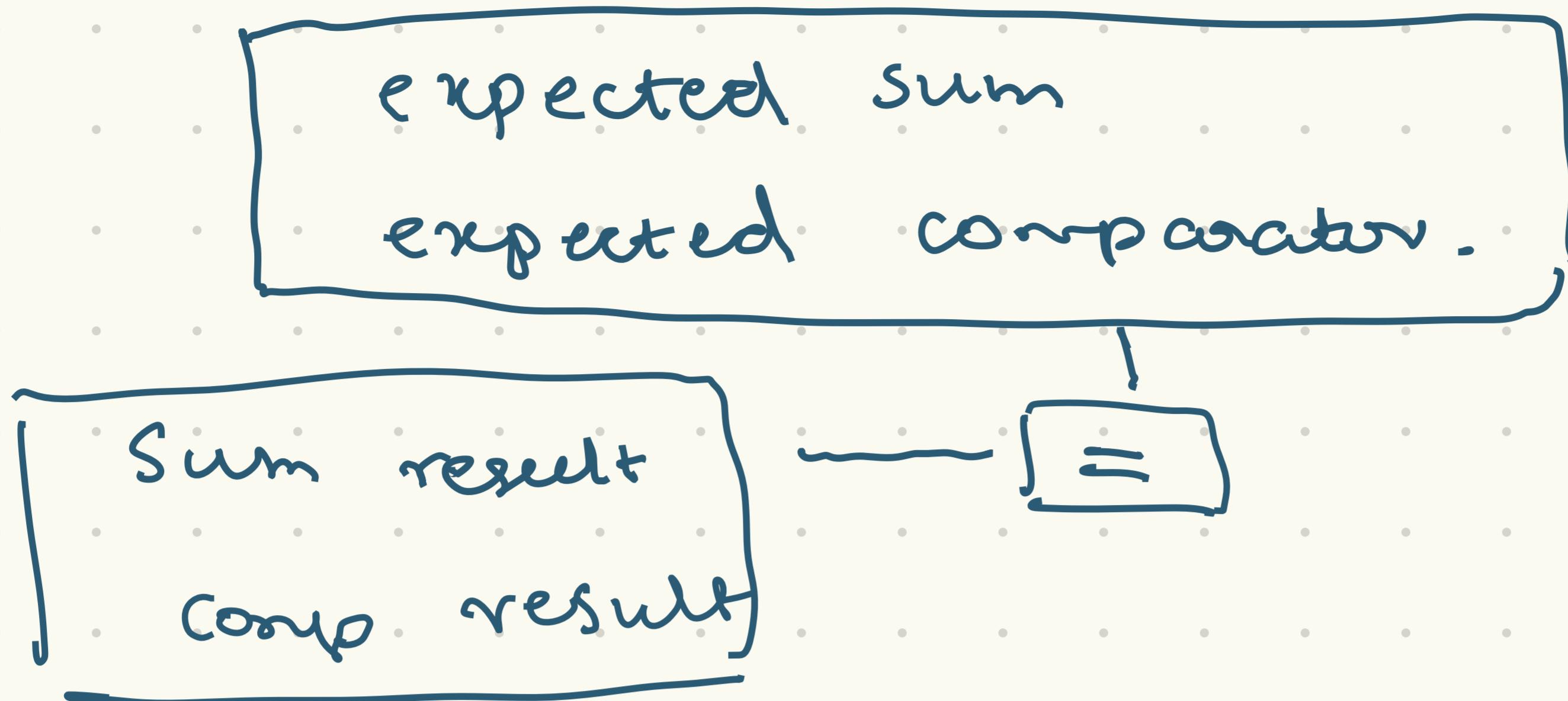
Threshold.

- rst & Clk
- Tb termination
- write the RAM

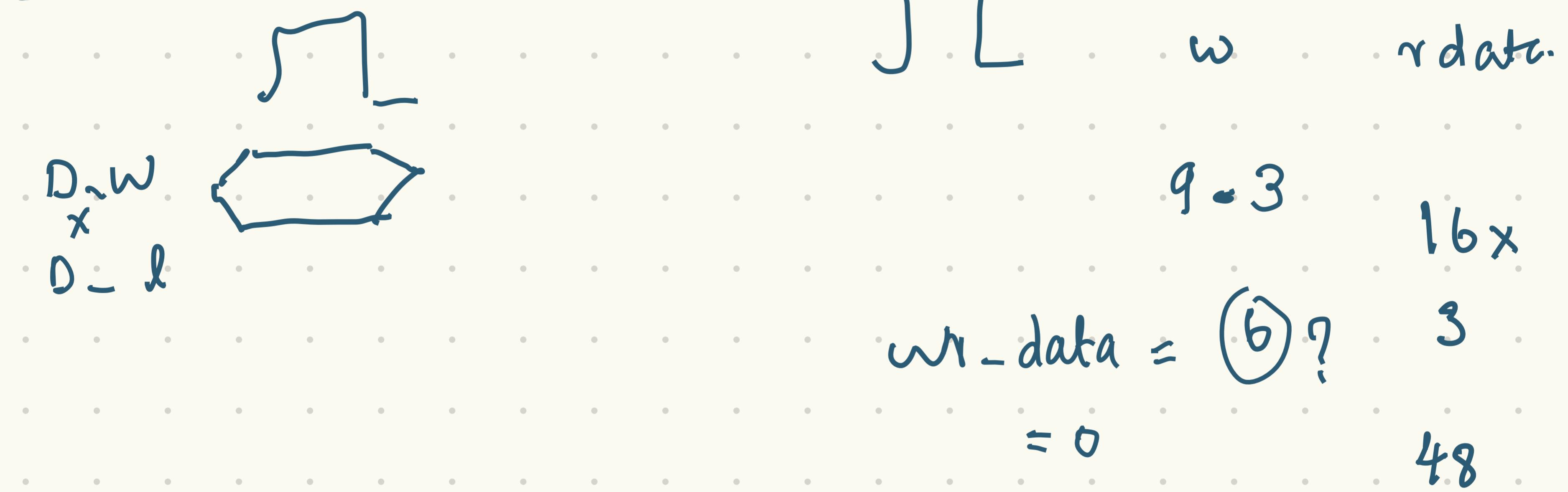
Test bench
Architecture.

- Data-in drive
- set threshold along with first data.

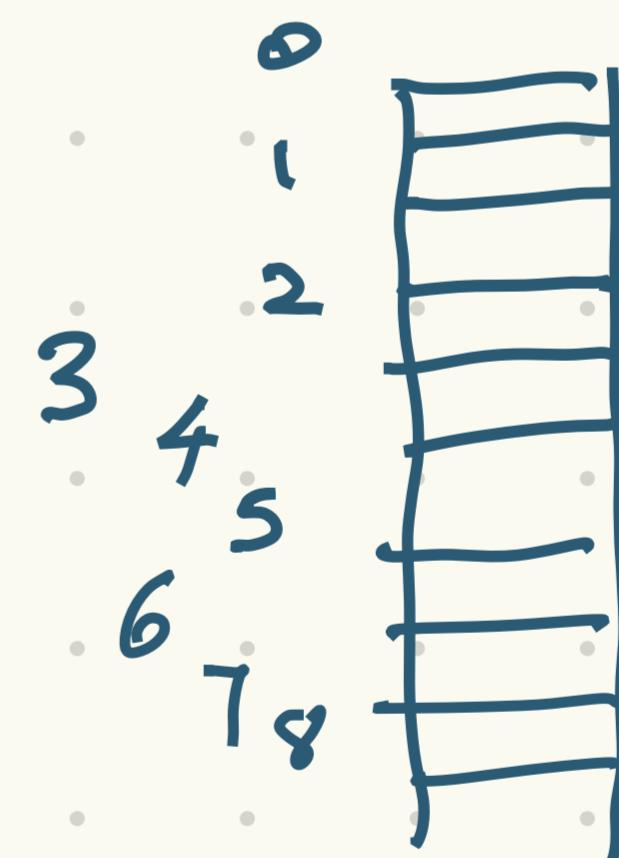
Scoreboard



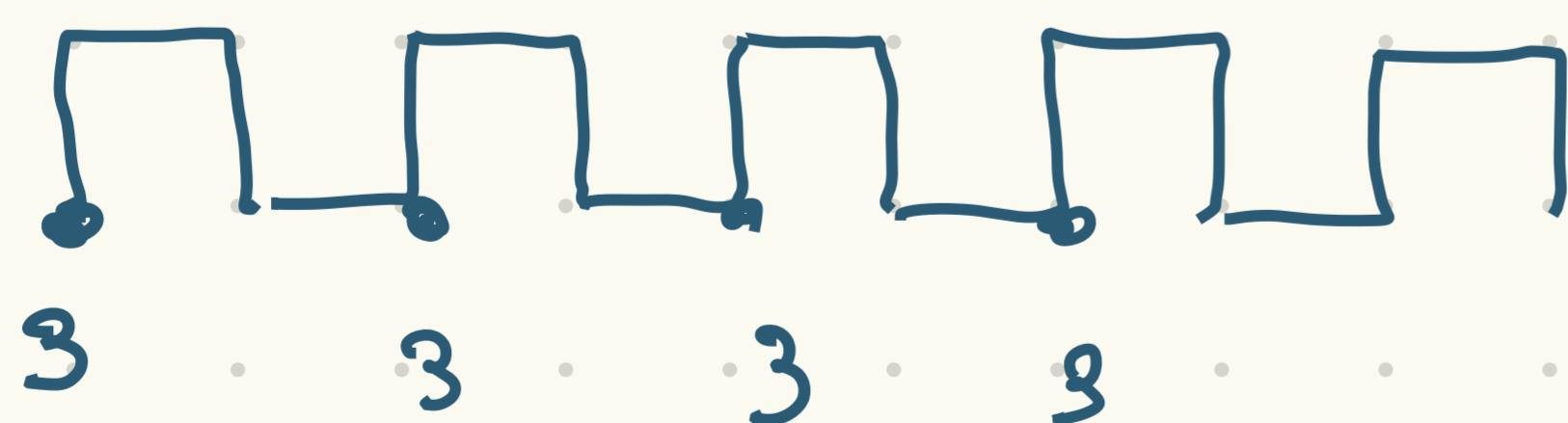
FIFO Design



$$wr_addr = wr_addr + 4$$



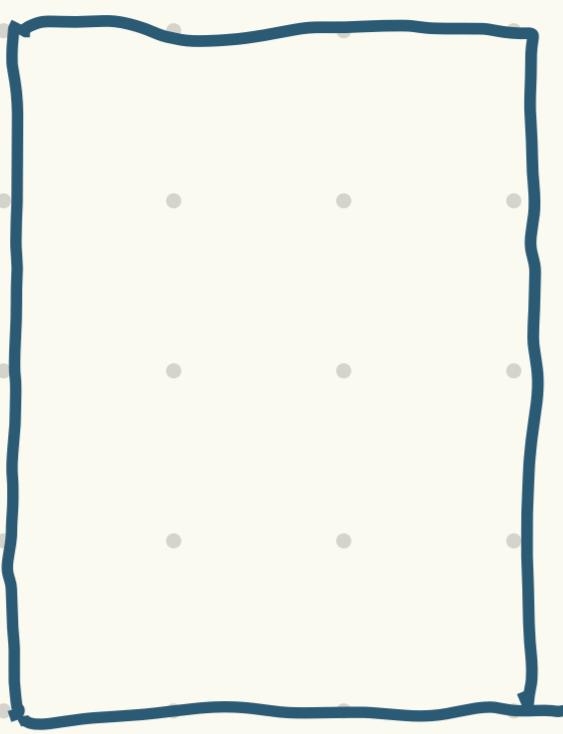
Assume a stream of 12 packets



Max of 9

fifo
size	3	5	7	9
	0	3	6	9

github Adding an image.



! [cheese!] ()

Relative path.

Method - I

Add local image.

Method - II

() → url to image source.

Method - III

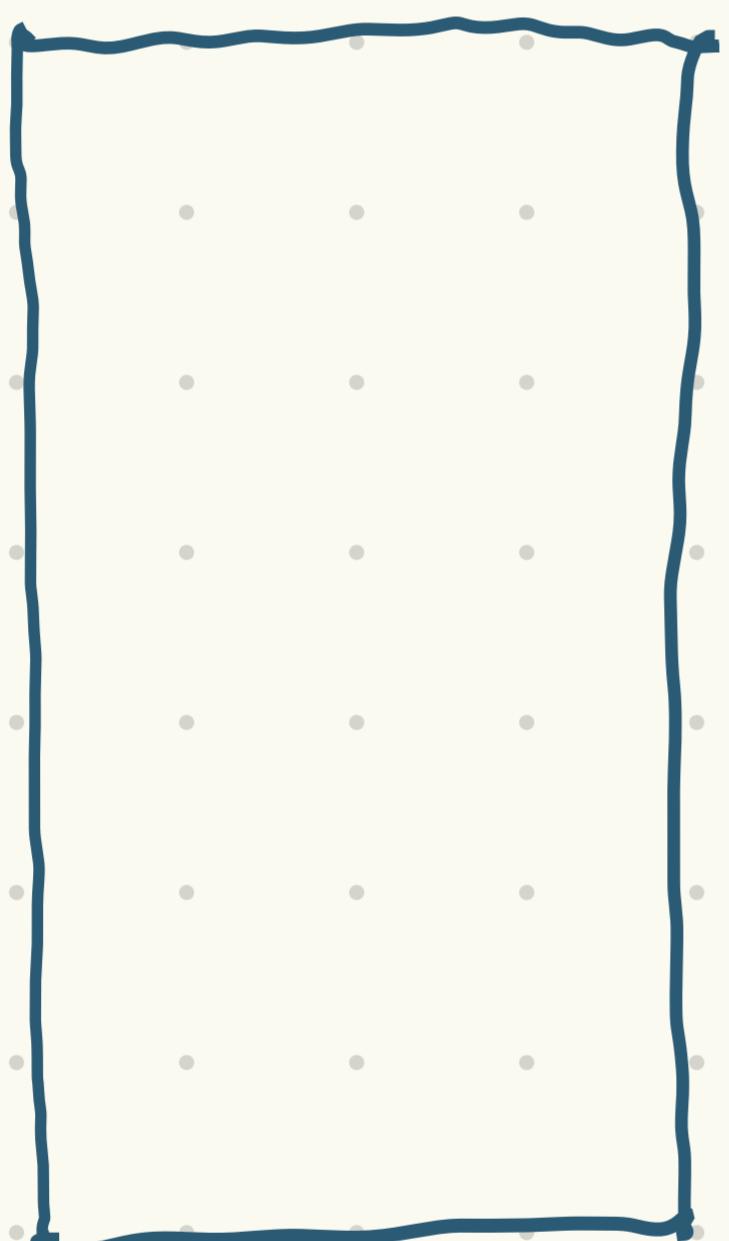


fig 1. Pictures

Left to Do!

and TB.

Add block diagrams for DUT

Send email to Nichole -

zipped

Git Repo

