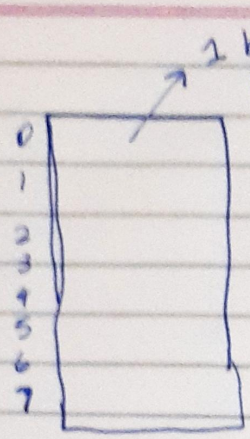
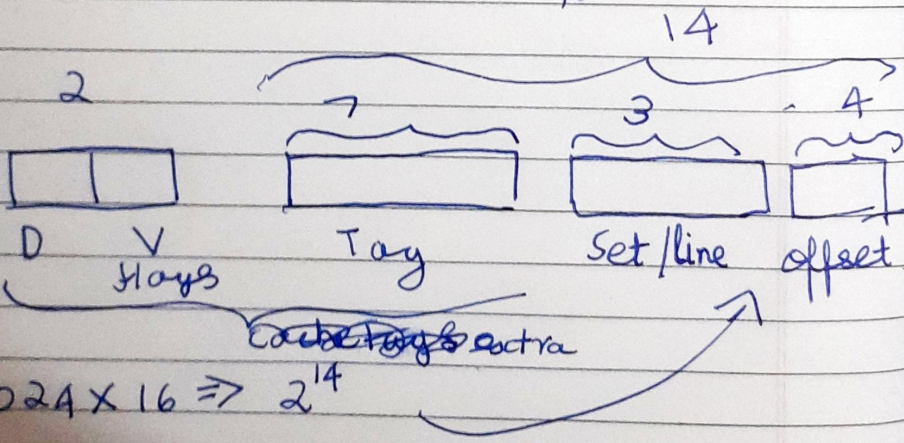


main mem
1024 blocks

2 Cache flags Dirty & valid (per block in cache)

Tag → 1 for block.

126 in main mem → 1 in cache
Tags → which of those 126 it is mapped to.



14 → for a word.

Processor sends address of word in main mem

cache controller

(i) is the word in the cache?

the block containg the word.

addr 14 ⟶ last 4 bits are offset.

remove offset

now we have 10 bits.

of these 10 last 3 are set no.

get to the in cache refered to by the 3 bits.

rem 3 bits

7 bits ⟶ cmp with tag check valid.

not maching

valid & dirty

matching and valid.

d=0

d=1

using 10 bit address bring corret block.

update dirty block

read / write using the last 4 bits of mem adress