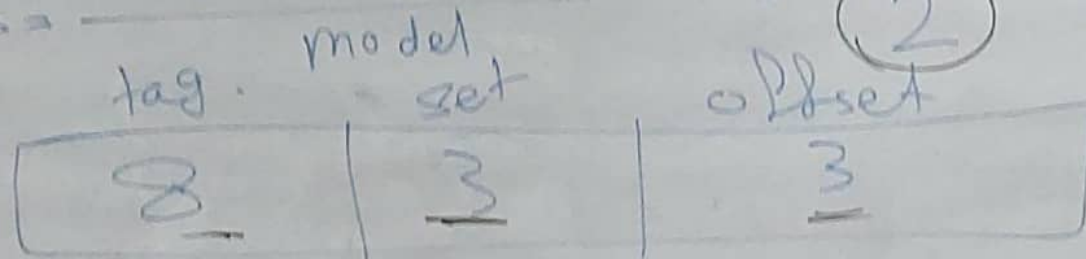


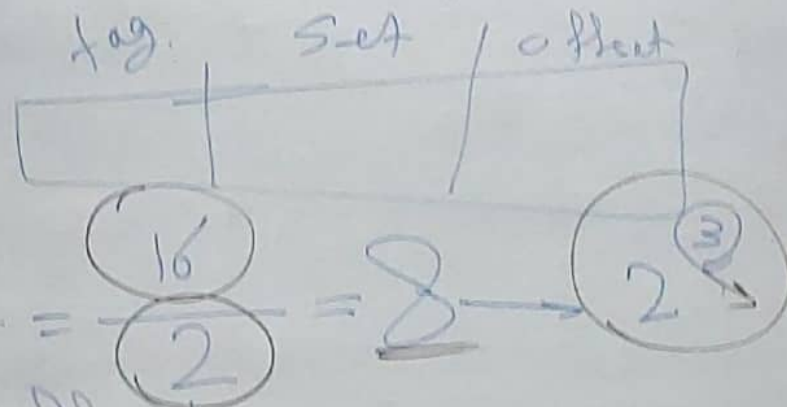
total Main Memory = 2^{14} bytes.

CACHE \rightarrow 16 block
 \rightarrow 8 byte $\rightarrow 2$

no. of sets = $\frac{\text{No. of block}}{\text{model set}}$



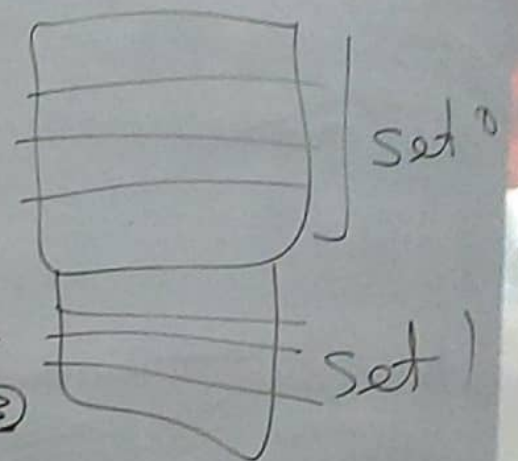
14 bit



total Main Memory = 1 MB $\rightarrow 2^{20}$ $\rightarrow 2^{20} \cdot 2^0 \cdot 2^0 = 2^{20}$

Cache \rightarrow 32 block $\rightarrow 2$
 16 byte.

\rightarrow 4 way set

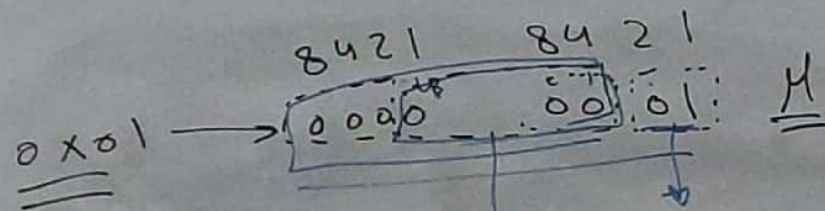


$$\text{no. of sets} = \frac{\text{no. of block}}{\text{model}} = \frac{32}{4} = 8 \text{ set}$$

tag.	set	offset
13	3	4

tag.	20 bit block.	offset
11	5	4

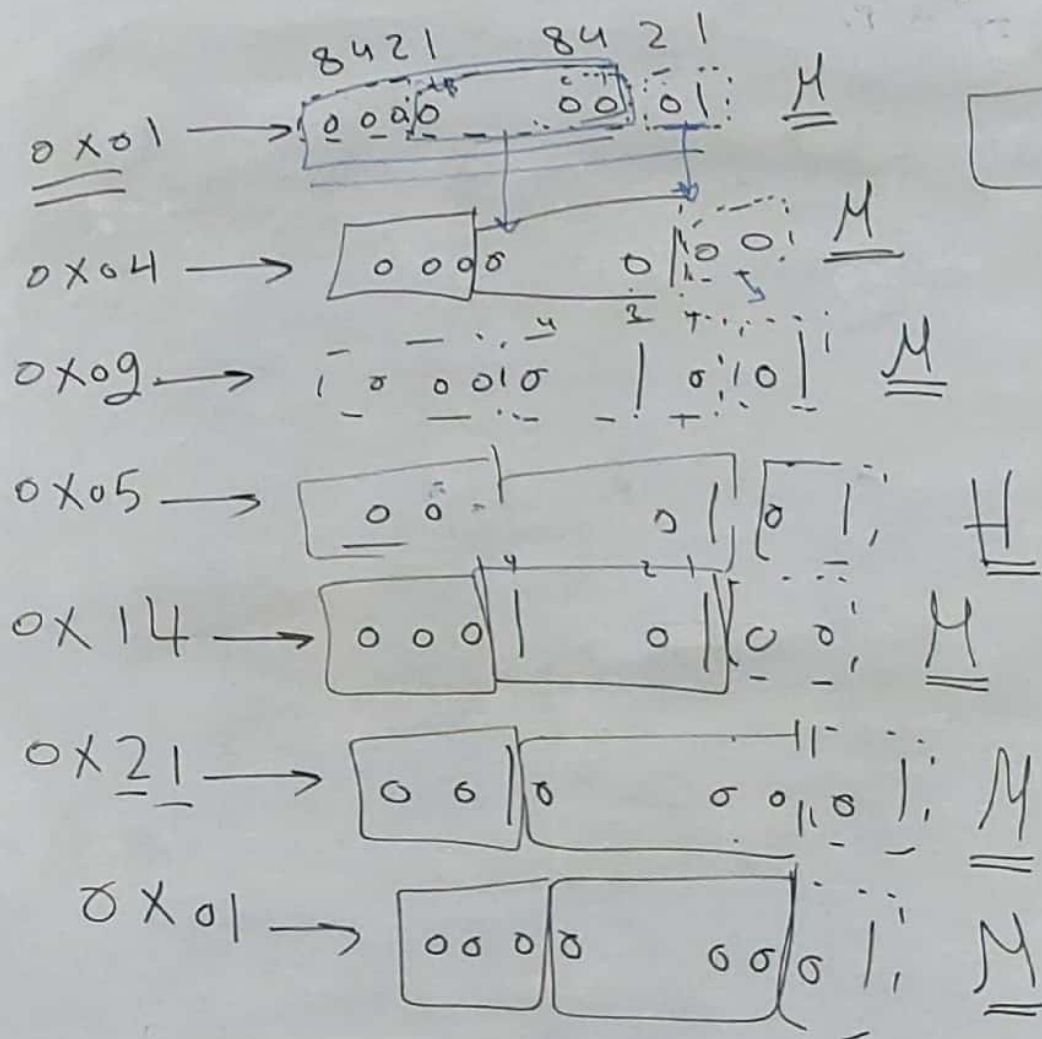
20 bit



tag	block	offset
3	3	2

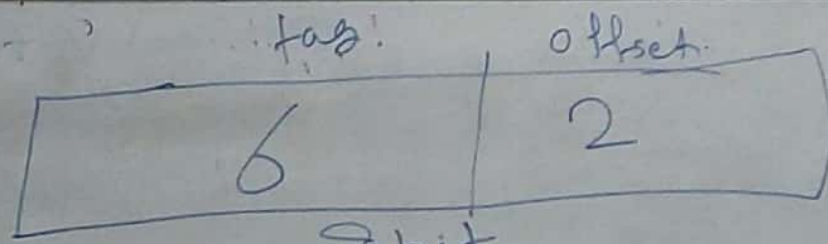
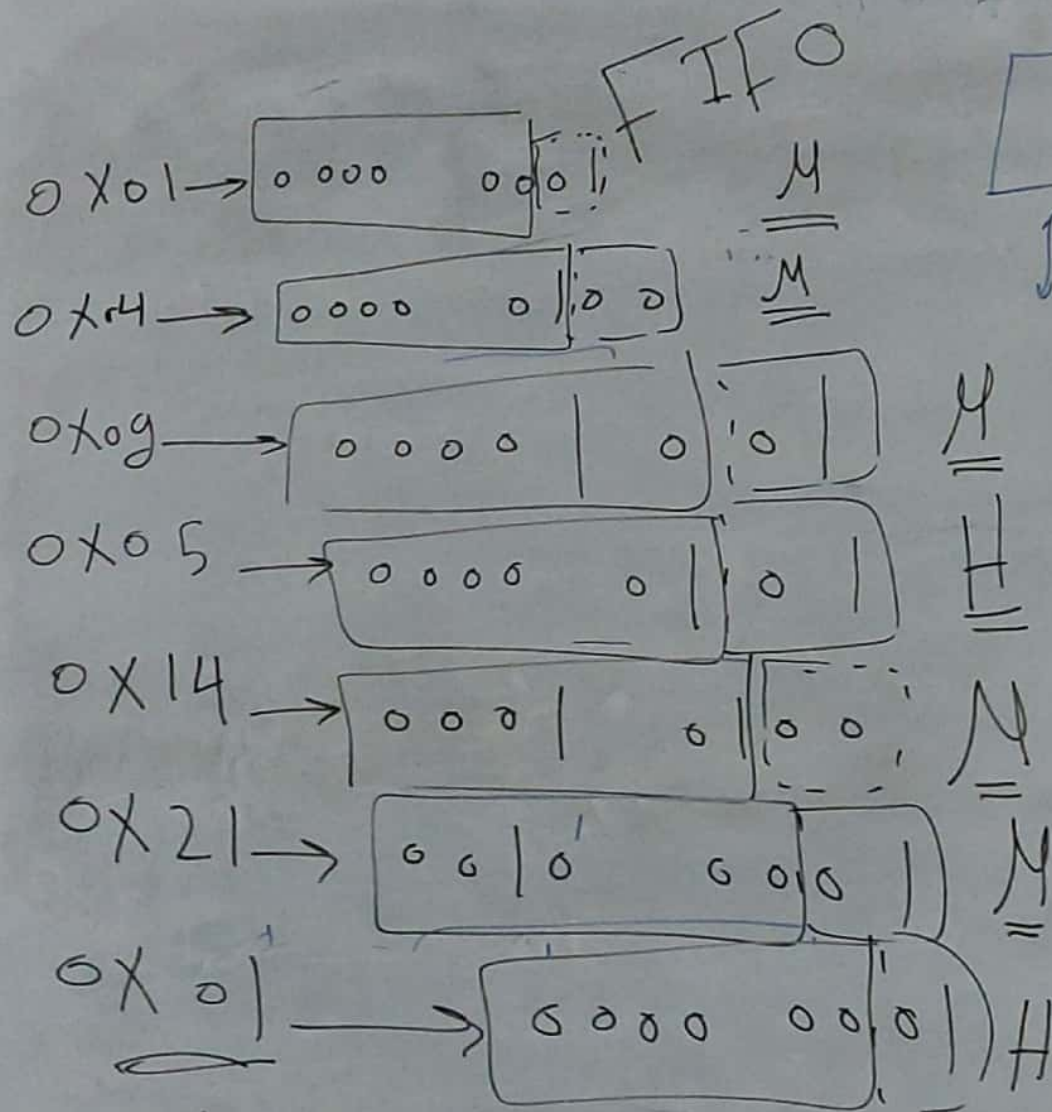
Start → 0000 → 0x00
 End → 0001 → 0x03

tag		
000	0x00 0x01 0x02 0x03	b0
		b1
		b2
		b3
		b4
		b5
		b6
		b7



tag	block	offset
3	3	2

tag				
000	0x00 0x01 0x02 0x03	0x20 0x21 0x22 0x23	0x00 0x01 0x02 0x03	b0
000	0x04 0x05 0x06 0x07			b1
000	0x08 0x09 0x0A 0x0B			b2
				b3
				b4
000	0x14 0x15 0x16 0x17			b5
				b6
				b7



tag 2bit

000000	0x00 0x01 0x02 0x03	b0
000001	0x04 0x05 0x06 0x07	b1
000010	0x08 0x09 0x0A 0x0B	b2
000011	0x0C 0x0D 0x0E 0x0F	b3
000100	0x10 0x11 0x12 0x13	b4
		b5
		b6
		b7

hit ratio = $\frac{2}{7}$
 Miss = $\frac{5}{7} = 1 - \frac{2}{7}$