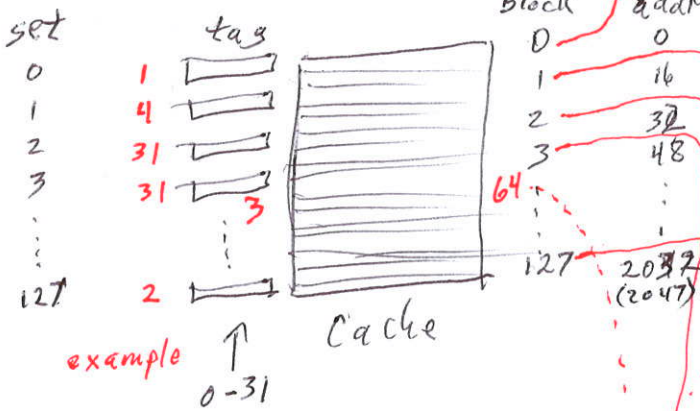
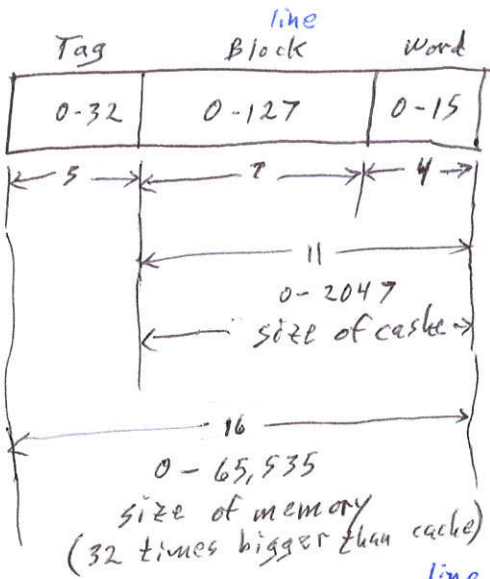


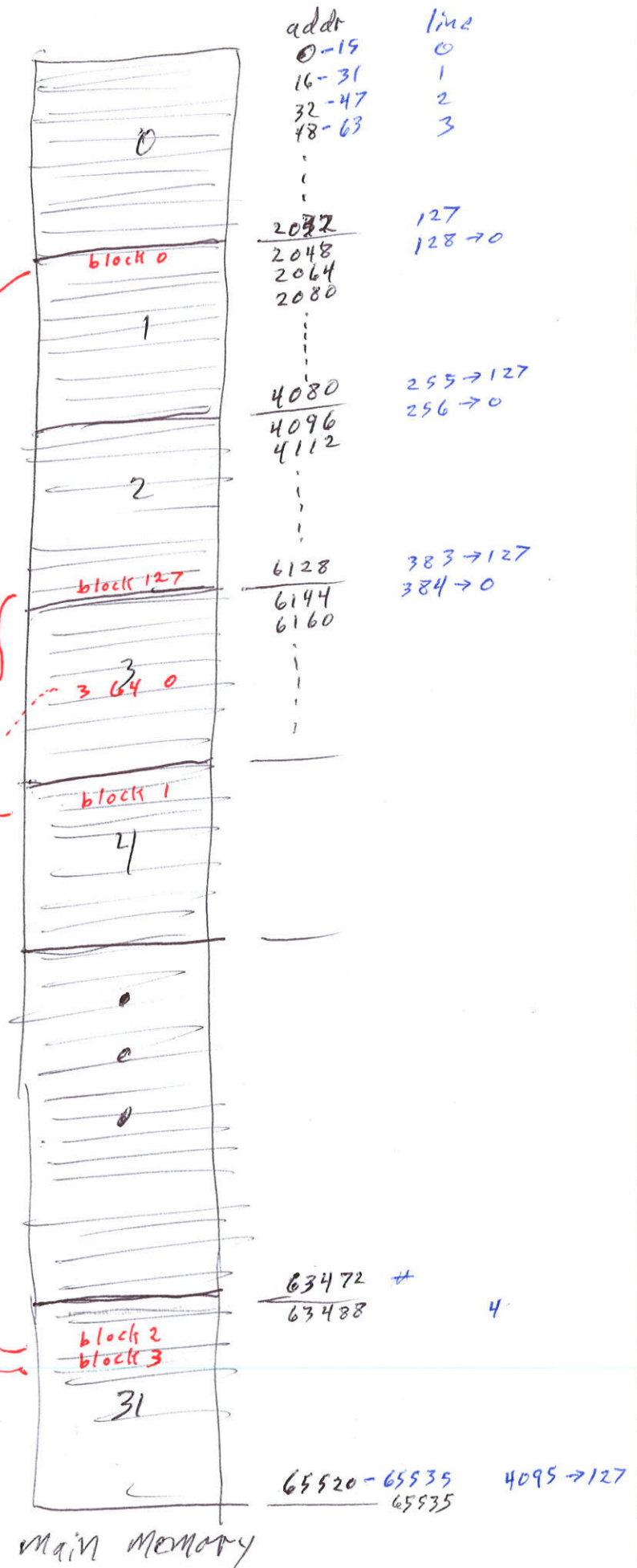
Direct Mapped



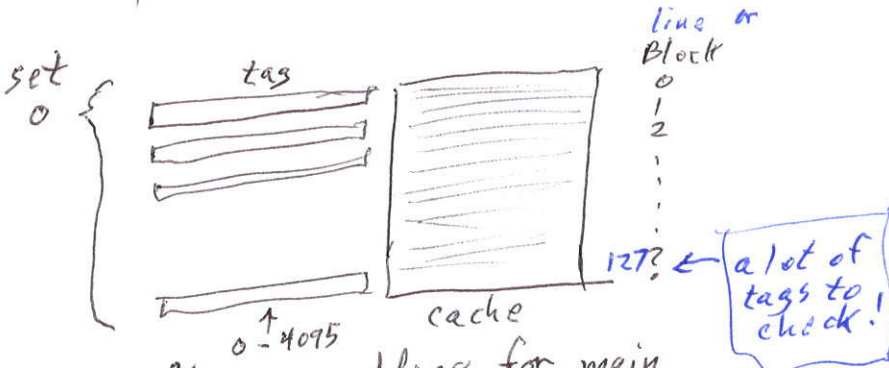
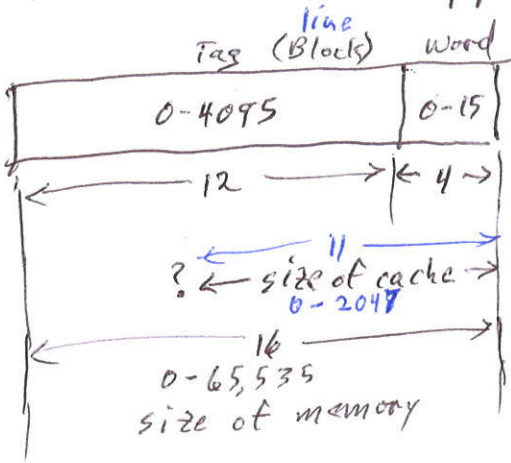
Given an address for main memory, you know exactly where to find it in cache, assuming it is in cache.

tag block word
 3 64 0
00011,1000000,0000

Each "set" has one tagged block of the cache
 line



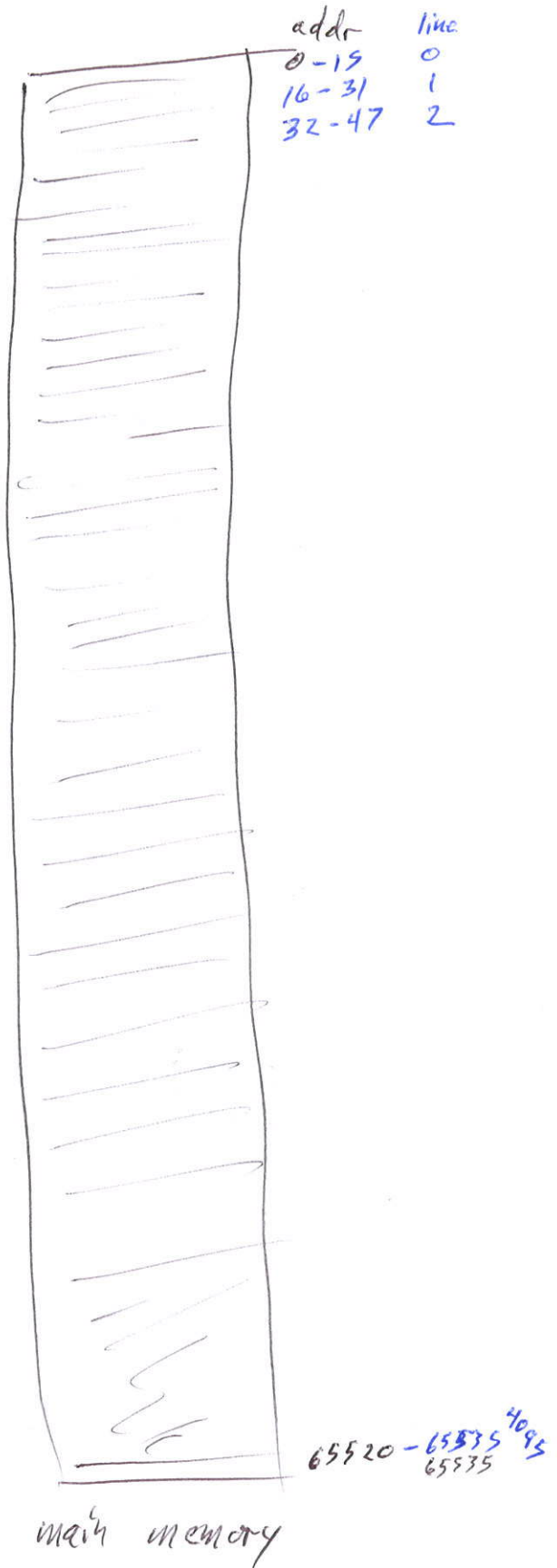
Associative Mapped



Given an address for main memory, you have no idea where to find the block in the cache, assuming it is in cache.

Must search all tags in the cache.

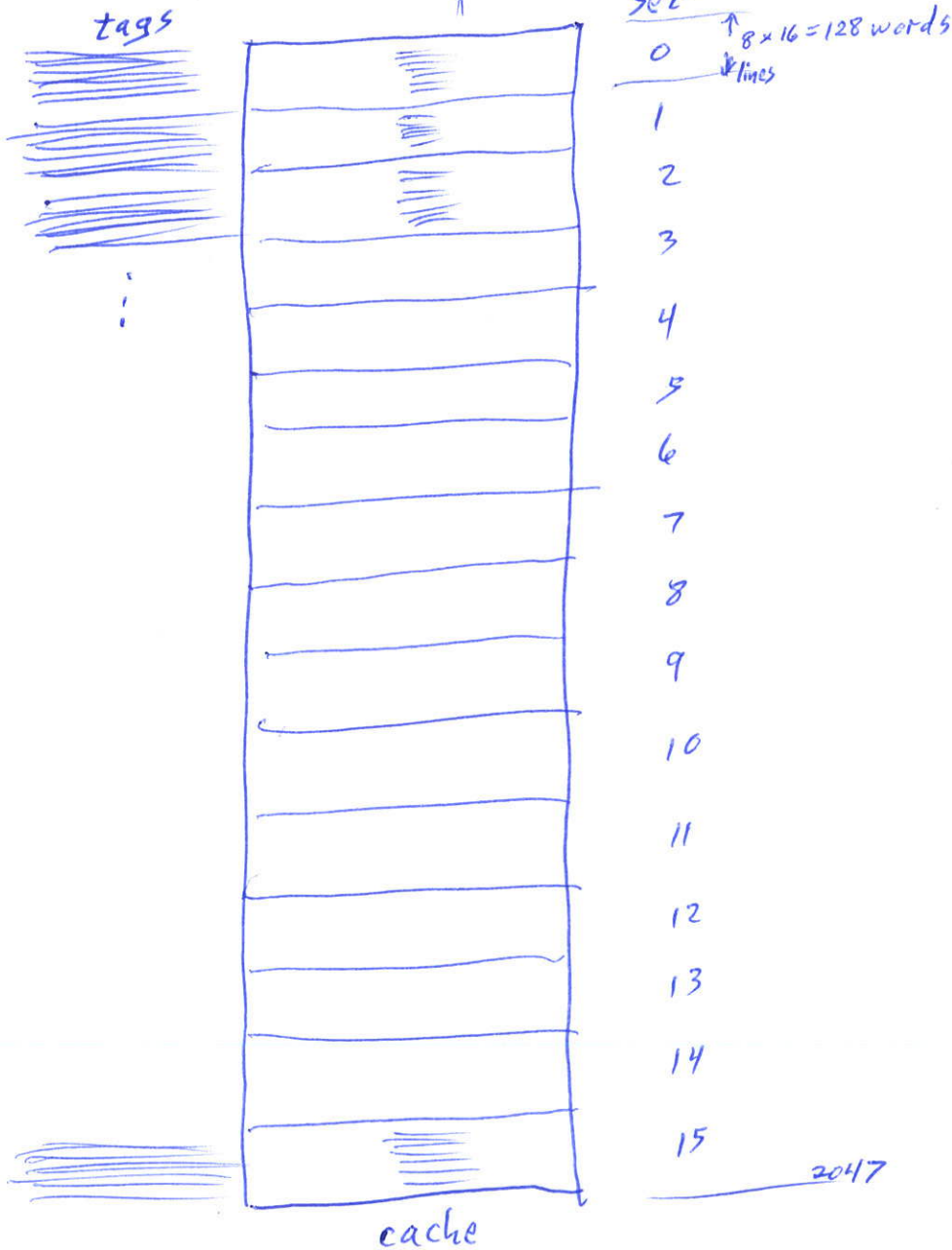
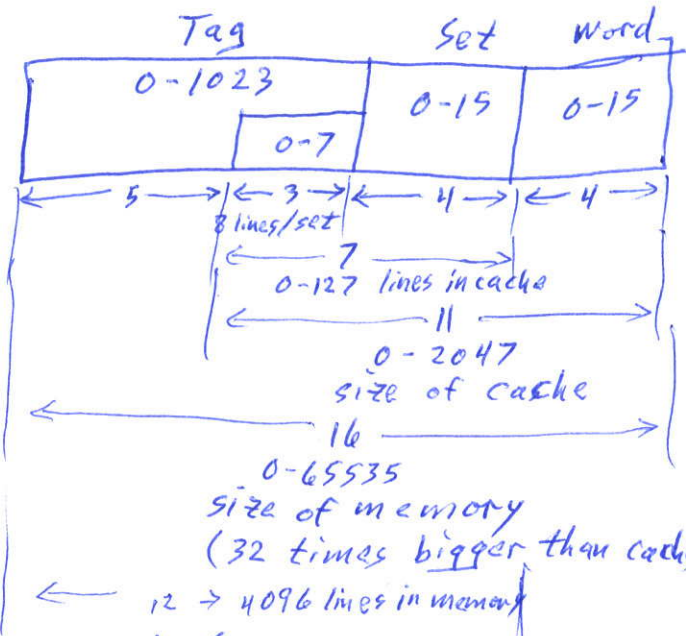
The only set is set 0 which contains all tagged blocks in cache

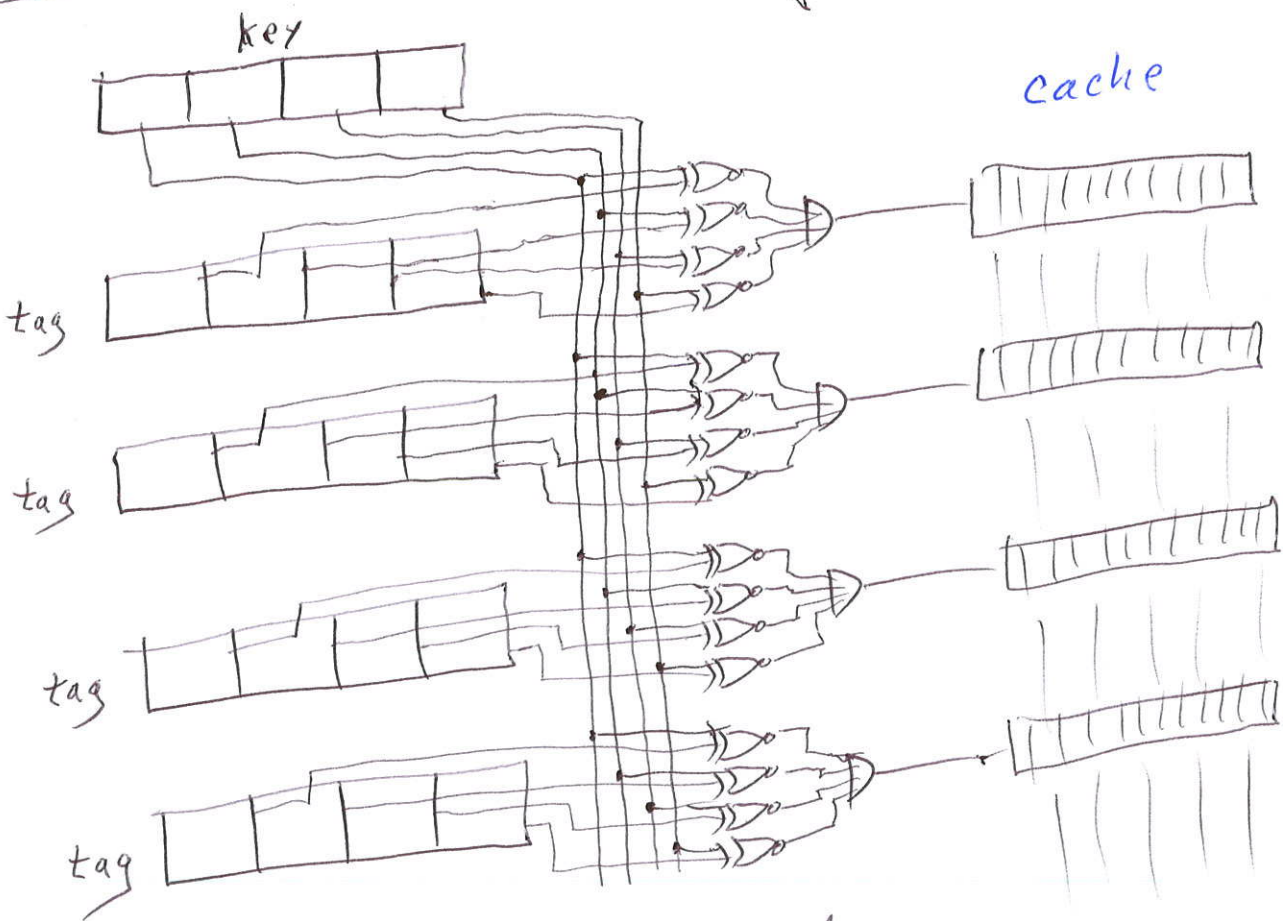
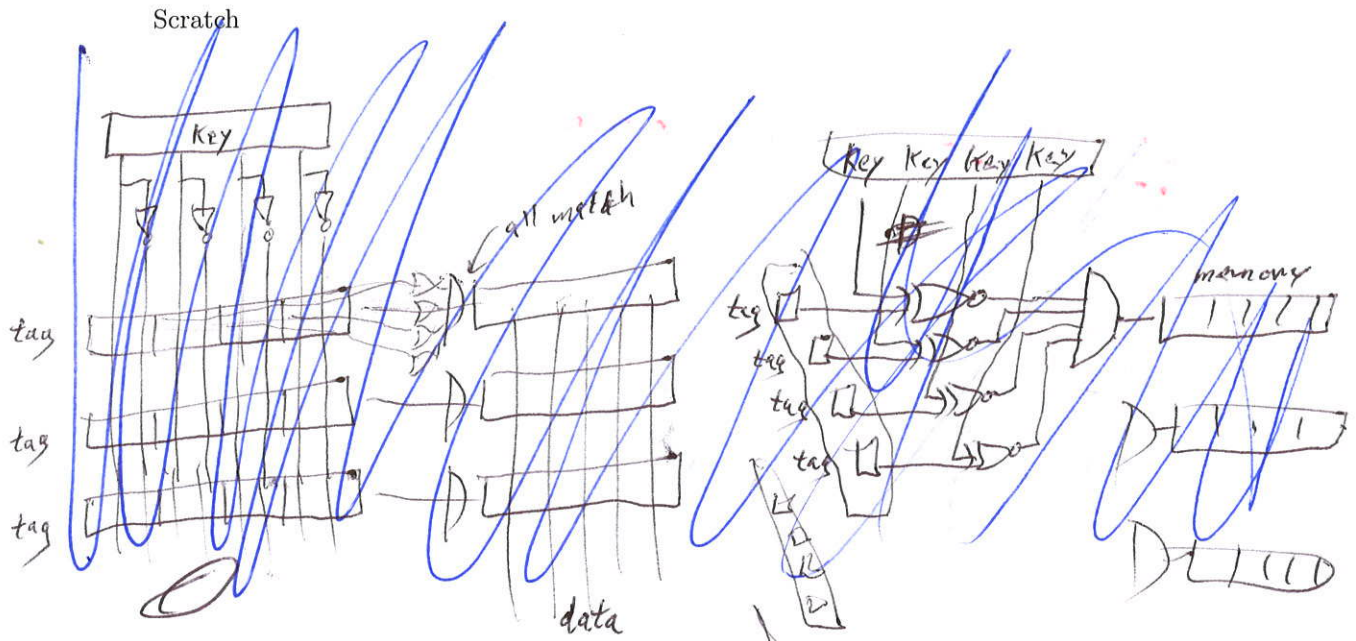


Set Associative Mapped

main memory mapping to Set 0:

XXXXXXXX0000XXXX
 0-15 0
 256-271 16
 512-527 32
 ⋮
 addr line





Associative Memory

looking for a match of the key
with one of the tags