Virtual

$1\,KB \equiv 2^{10}$

$4\,KB \equiv 2^{12}$

$Block = 4\,Bytes \equiv 2^{2}$

$Total = 2^{12} * 2^{2} \equiv 2^{14}$

Address = 14 bits

Offset = 2 bits

block = 12 bits

Physical

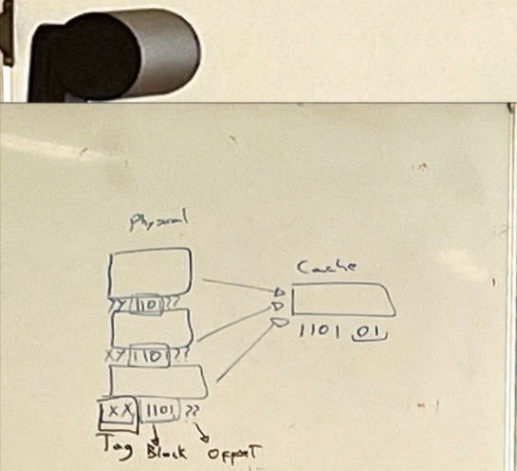
$2\,KB \equiv 2^{11}$

$Block = 2^{2}$

Total bits = 13 bits

Offset = 2 bits

block = 11 bits



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Offset = 2 bits

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Physical

$2\,KB \equiv 2^{11}$

$Block = 2^{2}$

Total bits = 13 bits

Offset = 2 bits

block = 11 bits

Physical 2 bytes/block

block offset

2^{8}

11 01 01

Cache 2 bytes/block

block offset

1101 01

2^{10} 1kB

2^{9} 512B

2^{8} 256B

64 BTotal

2^{6}