Formulaes

- $\frac{\text{MM Size}}{\text{BS}}$ = No. of blocks

Block Size = Line Size

- $\frac{\text{CM Size}}{\text{LS}}$ = No. of Lines
- Block Index = No of blocks (w) bits
- Cache Index = " " Lines (w) bits
- Block Offset = Block size = Line Size = $2^{(w)}$ bits

- Phy. Add = MM Size = $2^{(w)}$ bits
- Cache Add = CM Size = $2^{(w)}$ bits
- Tag bits (DM) = Phy Add − Cache Add.
  BI − CI
- Tag bits (AM) = BI
- " " (SAM) = BI − SI (Set Index)
- No. of sets = $\frac{\text{No. of lines}}{k}$ $k = 2 | 4 | 8$
- Set Index = No. of sets = $2^{(w)}$ bits

$2^1 = 1$
$2^2 = 4$
$2^3 = 8$
$2^4 = 16$
$2^5 = 32$
$2^6 = 64$
$2^7 = 128$
$2^8 = 256$
$2^9 = 512$
$2^{10} = 1024$
$2^{11} = 2048$
$2^{12} = 4096$

$2^{10} = 1$ kb
$2^{20} = 1$ mb
$2^{30} = 1$ gb
$2^{40} = 1$ tb