

ESERCIZIO LEZ. 19 SLIDE 07 (versione aggiornata)

HIT RATE	RICH. A DISCO	TEMPO NORMALIZZATO
100 %	0	1 (i)
99.999 %	5 *	(ii) → 50001
99.99 %	50	(iii) → 500'001
99.9 %	50	(iii) → 500'001
90.0 %	50	(iv) → 500'001

$$i) \text{ MISS RATE} = 1 - \text{HIT RATE} = 0.00001$$

$$ii) = 0.0001$$

$$iii) = 0.001$$

$$iv) = 0.1$$

$$\text{MISS RATE} \times \text{RICH. A DISCO} = \overbrace{10^{-5} \cdot 5 \cdot 10^5}^{\text{RICH. A DISCO}} = 5 *$$

$$10^{-4} \times 5 \cdot 10^5 = 50$$

$$10^{-3} = 500 \xrightarrow{\text{LIM. DISCO}} 50$$

$$10^{-1} = 50000 \rightarrow 50$$

$$b) \frac{T_{CPU}}{T_{CPU, IDEALE}} = 1$$

$$i) \frac{T_{CPU}}{T_{CPU, IDEALE}} = 1 + \frac{N_{REF, KET}}{N_{CPU}} \cdot \frac{1}{M_{PER}} \cdot \frac{C_{REV}}{C_{HIT}} = 1 + 5 \cdot 10^{-5} \cdot 10^{-5} \cdot 10^4 = 50001$$

$$ii) = 1 + 10^4 \cdot 50 = 500'001 (500'001)$$

$$iii) = 1 + 10^4 \cdot 50 = 500'001$$

$$iv) = 1 + 10^4 \cdot 50 = 500'001$$