

N page working
 M page program.

for FIFO every N page faults, M extra ones occur.

$$\text{Page fault time} = t_p$$

$$\text{cost} = M \cdot t_p \quad \text{for } N \text{ page faults}$$

for LRU, every page fault, time is extended to t_f

$$\text{cost} = N t_f \quad \text{for } N \text{ page faults}$$

must compare $M \cdot t_p$ with $N \cdot t_f$

$$t_p = 80 \text{ ms}$$

$$M = 30 \text{ pages}$$

$$N = 1000 \text{ pages.}$$

$$\text{for } M t_p > N t_f,$$

$$t_f < \frac{M}{N} t_p$$

$$t_f < 3\% t_p$$

$$\cong 2.4 \text{ ms.}$$