

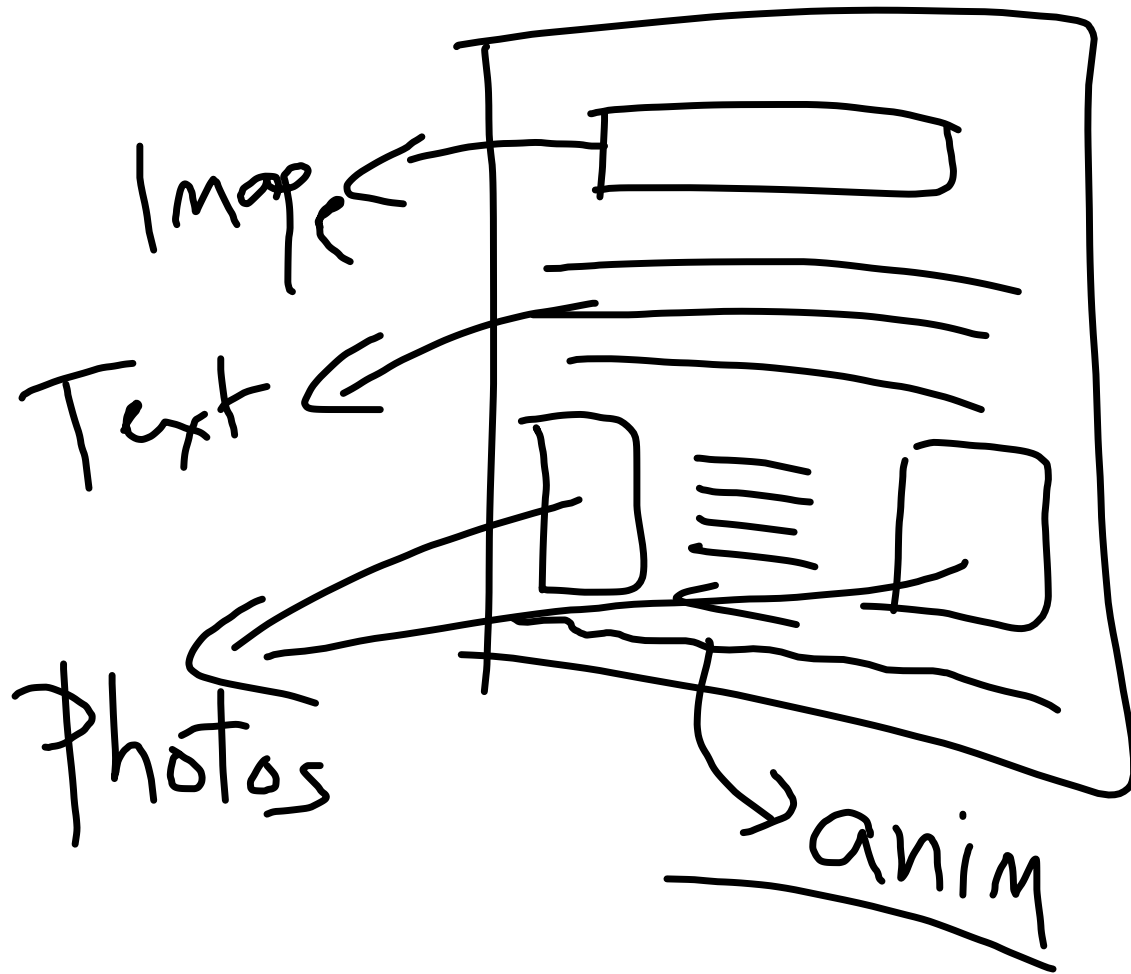
RAM : Volatile  
Run-time  
(short-term) Temporary  
Overwritten

ROM : Non-volatile  
Erased/Reprogram

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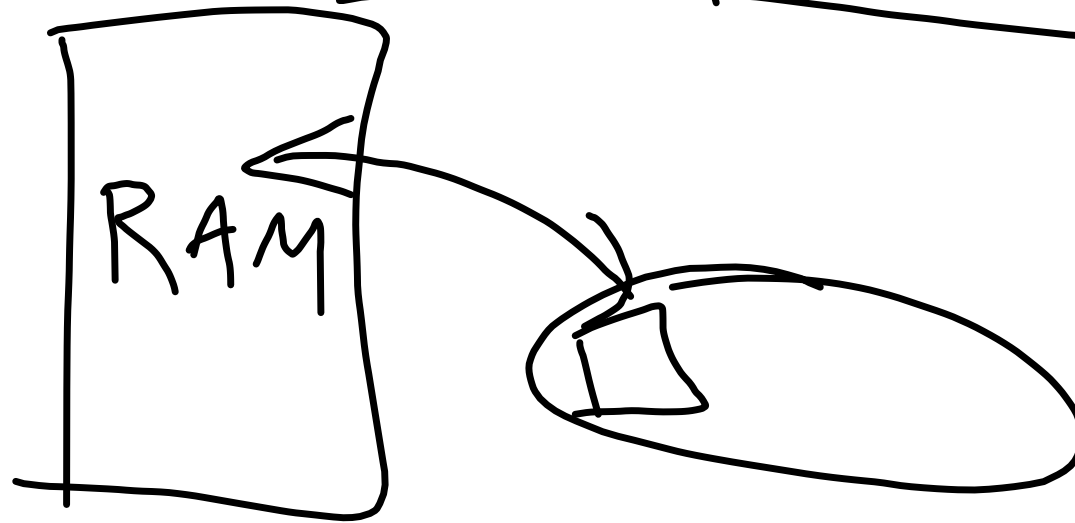
PROM  
EPROM(UV)  
EEPROM

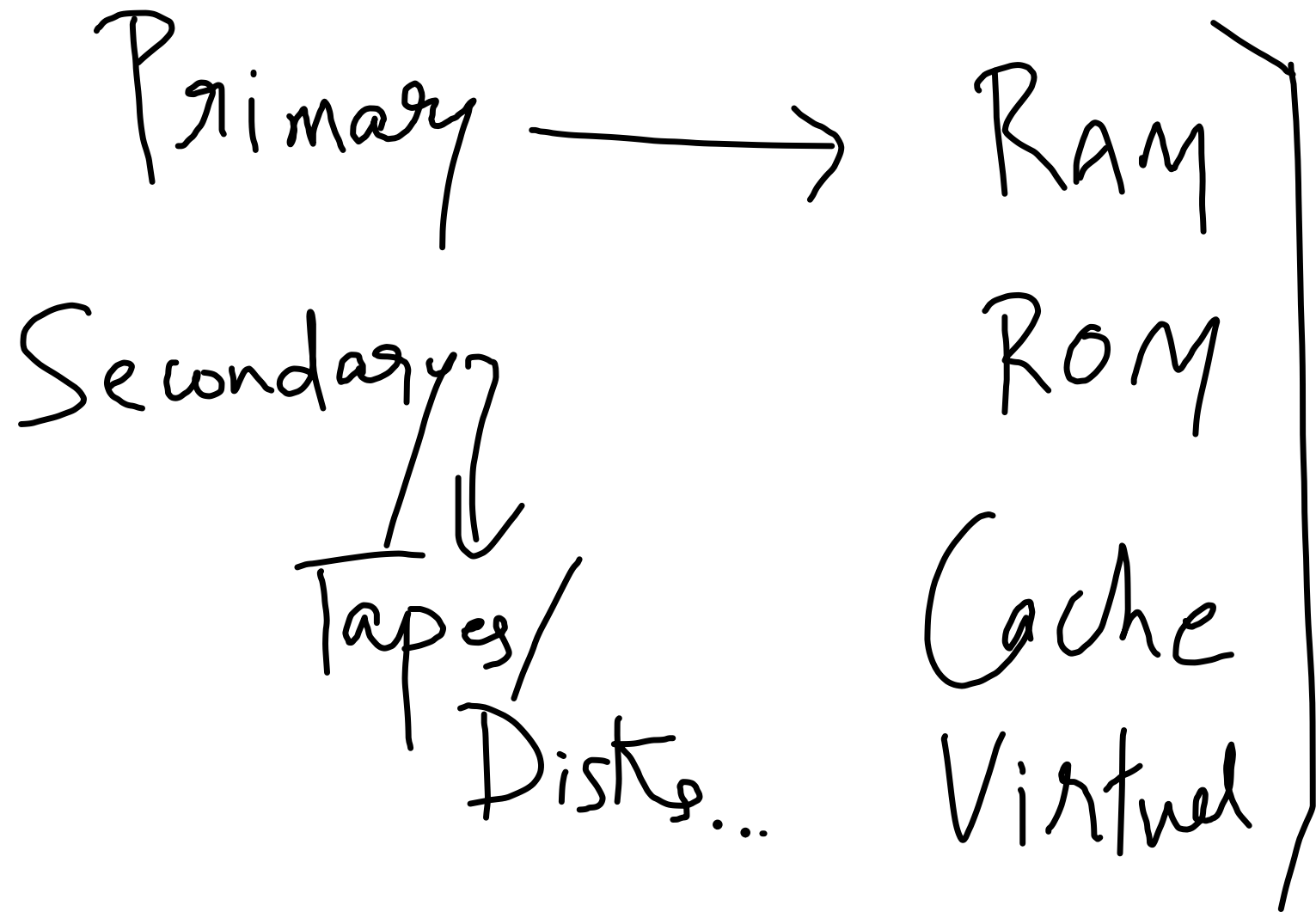
Permanent  
Not overwritten

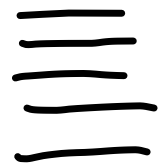


Smart  
Cache

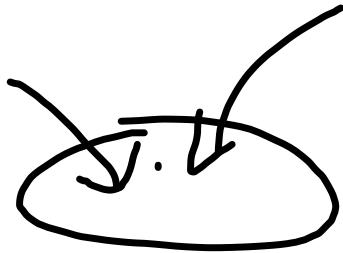
# Virtual Memory.







Sequential Access



Direct Access

(RANDOM ACCESS)

Tracks Tape

Even  
parity

B

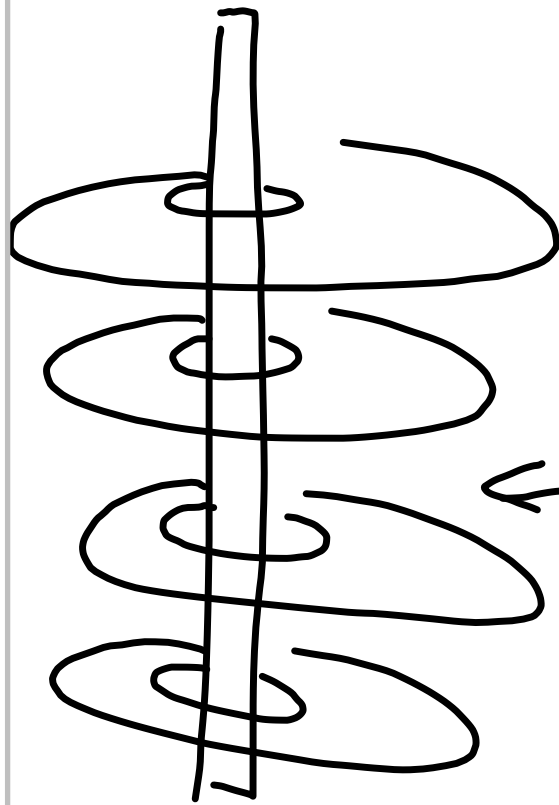
A

11110010 11

(odd)

5 1s

# 2 Kinds of magnetic disk

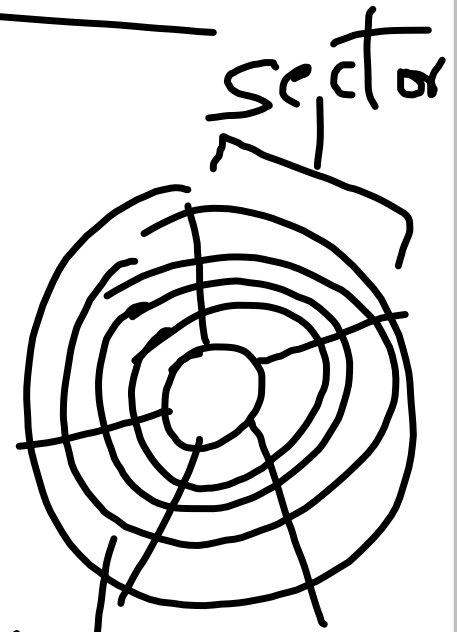


①

floppy

②

Hard →



tracks ←

Pg 147

→ 3 hours/day

→ 100,500 bps

12.26  
KB/s

= 100500/8

=

= 12562.5 KB

≡

12.26 KB

12562 B

= 129 MB

Given

$$= 129 \text{ MB/day}$$

= for one year

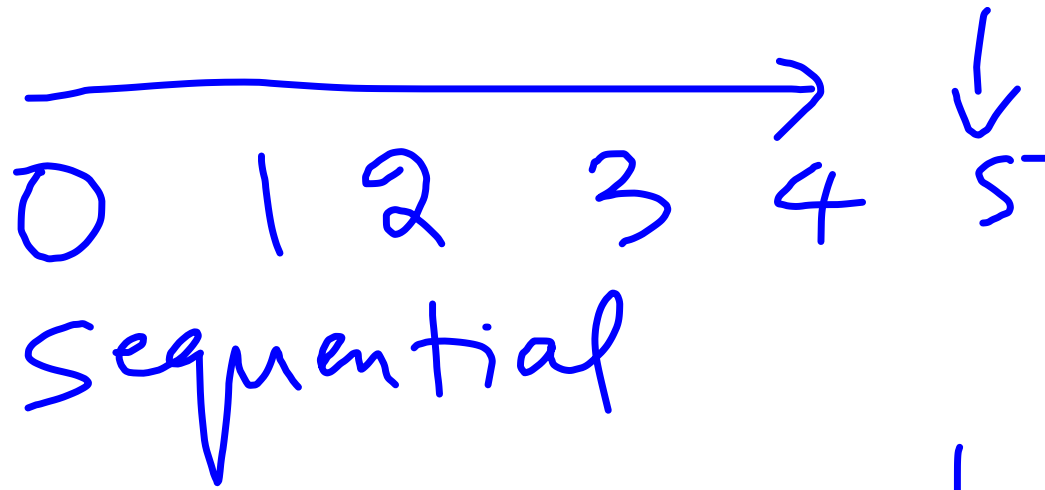
$$= 129 \times 365 \times 2 \times \frac{1}{1024}$$

$$= 94170 \text{ MB} \quad \text{2 years}$$

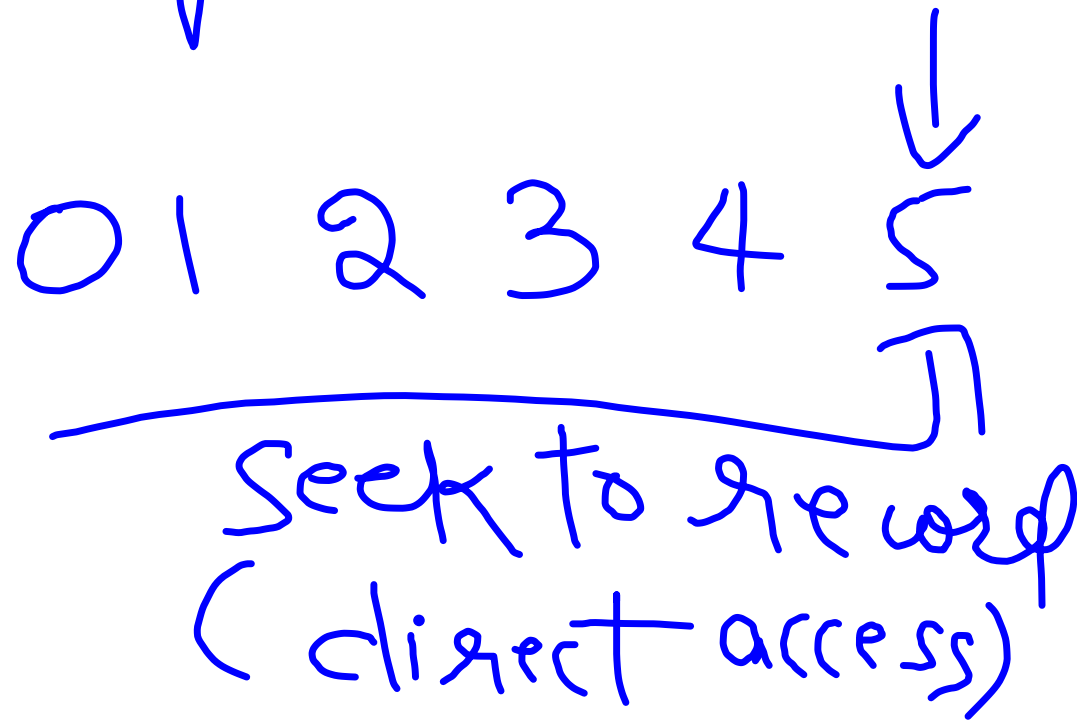
$$= 188340 \text{ MB}$$

$$= 183.92 \text{ GB} \Rightarrow 249.5$$

0 1 2 3 4 5  
Sequential



0 1 2 3 4 5  
Seek to reword  
(direct access)



Index file  $\Rightarrow$  RAF

