Ýmir Þórleifsson

HW 6

# 6.1.1

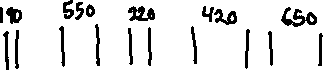
1. from f: 0-100 to 50-150, st: 120 to 170

2. from f: 1000-1100 to 1550-1650, st: 1120 to 1670

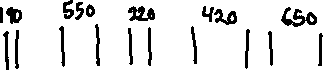
3. from f: 1000-1100 to 1550-1650, st: 120 to 170

# 6.1.5

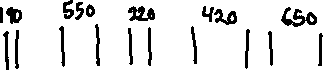
First-fit



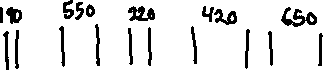
Next-fit



Best-fit



Worst-fit



# 6.2.1

Number of blocks = 18.000 (18 MB)

n = 0.5 m

a) 6.000

b) 12.000

c) 1/3

# 6.2.3

f = k/(k + 2)

a) 0,5

b) 0,2

# 6.2.4

Size: 256.000 blocks (256 MB)

Block size: 1.000 byte (1KB)

Read / write speed 4 byte (32 bit): 10 ns

Time per block: 2.500 ns

Blocks occupied: 170.667

**Time: 427 ms (426.667.500 ns)**

# 6.3.1

a) 4096 = 2\*\*12, 12+4 = 16 words

b) 64 = 2\*\*6, 12+6 = 18 words

# 6.3.2

A B C D

Page table size (pages) 7 6 23 22

LA space (words) 3584 6144 11776 22528

# 6.3.3

a) PT[12]:f=3 is added, PT[34] changes to PT[49]

b) 4608 = 9, 5119 = 9, 5120 = 10, 33300 = 65

# 6.4.1

a) 512 = 2\*\*9, w = 9 bits

b) 32 – 13 – 9 = 10 bits

# 6.4.4

It is the same, 50 % af fraction h of memory need is needed.