

EX 4 p 254

a) Request of 12 MB

First fit -> 20 (#3)

Best fit -> 12 (#7)

Worst fit -> 20 (#3)

Next fit -> 20 (#3)

b) Request of 10 MB

First fit -> 10 (#1)

Best fit -> 10 (#1)

Worst fit -> 18 (#4)

Next fit -> 18 (#4)

c) Request of 9 MB

First fit -> 18 (#3)

Best fit -> 9 (#5)

Worst fit -> 15 (#8)

Next fit -> 9 (#6)

EX 7 p 254

a) physical address corresponding to virtual addr 20 : 8212

b) physical address corresponding to virtual addr 4100 : 4100

c) physical address corresponding to virtual addr 8300 : 24684

EX 28 p 257

FIFO : 6 page faults

LRU : 7 page faults

EX 38 p 258

Solution : Fragment B

A frame is 128 words so one row of the array occupies half a page. Thus fragment B will generate a page fault only after 2 iterations of the outer loop, that is in total $64/2 = 32$ page faults. Fragment A however will generate a page fault after 2 iterations of the inner loop since it looks for consecutive columns. In total fragment A will cause $64 * 64 / 2 = 2048$ page faults.