



## 第9章作业

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### 作业1

- 9.5 Assume we have a demand-paged memory. The page table is held in registers. It takes 8 milliseconds to service a page fault if an empty page is available or the replaced page is not modified, and 20 milliseconds if the replaced page is modified. Memory access time is 100 nanoseconds. Assume that the page to be replaced is modified 70 percent of the time. What is the maximum acceptable page-fault rate for an effective access time of no more than 200 nanoseconds?

### 作业2

**9.18** Assume there is an initial 1024 KB segment where memory is allocated using the Buddy System. Using Figure 9.27 as a guide, draw the tree illustrating how the following memory requests are allocated:

- request 240 bytes
- request 120 bytes
- request 60 bytes
- request 130 bytes

Next, modify the tree for the following releases of memory. Perform coalescing whenever possible:

- release 240 bytes
- release 60 bytes
- release 120 bytes

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- 作业3: Second Chance置换  
给定以下reference string

3 2 3 1, 4 3 5 4, 2 3 4 3, 5 2

可用frame数目为3, 采用Second Chance algorithm, 计算page fault和页置换数目

## 作业提交方式

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- 使用电子版提交作业，可以提交word或者pdf格式的文档
- 邮件和作业文件命名方式：学号-姓名-操作系统第5次作业
- 电子版作业发送至课程邮箱：kcsjbupt@126.com
- 作业提交截止时间：2022年12月5日