

## 作业十一

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Practice Exercise: 11.13, 11.20

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### 11.13

Suppose that a disk drive has 5,000 cylinders, numbered 0 to 4,999. The drive is currently serving a request at cylinder 2,150, and the previous request was at cylinder 1,805. The queue of pending requests, in FIFO order, is:

2,069; 1,212; 2,296; 2,800; 544; 1,618; 356; 1,523; 4,965; 3,681

Starting from the current head position, what is the total distance (in cylinders) that the disk arm moves to satisfy all the pending requests for each of the following disk-scheduling algorithms?

- FCFS
  - 初始: 2150
  - 2069 1212 2296 2800 544 1618 356 1523 4965 3681
  - 12993
- SCAN
  - 初始: 2150
  - 2296 2800 3681 4956 4999 2069 1618 1523 1212 544 356
  - 7492
- C-SCAN
  - 初始: 2150
  - 2296 2800 3681 4956 4999 0 356 544 1212 1523 1618 2069
  - 9917

### 11.20

Consider a RAID level 5 organization comprising five disks, with the parity for sets of four blocks on four disks stored on the fifth disk. How many blocks are accessed in order to perform the following?

- a. A write of one block of data
  - 2
- b. A write of seven continuous blocks of data
  - $7 + 2 = 9$