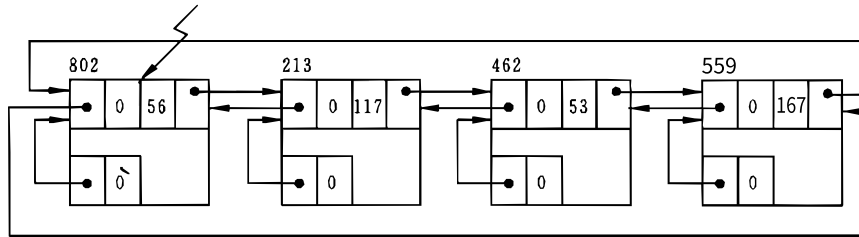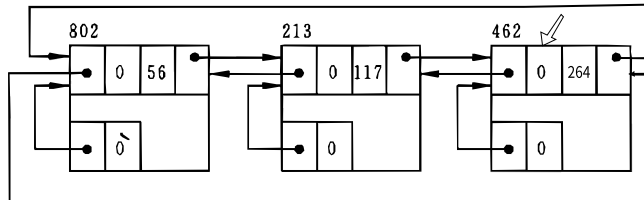# 数据结构作业
第三次

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5. 习题 8-1

    1) **解**
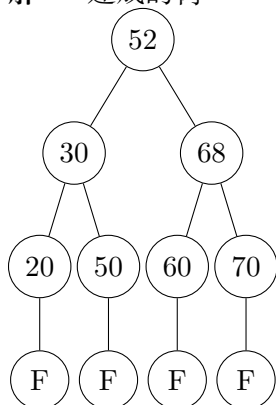

    2) **解**

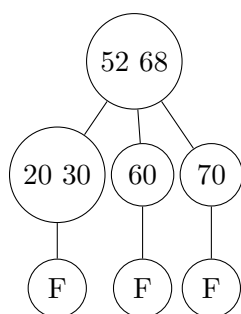6. 习题 8-7

7. 习题 9-1

解

    1) 相同

    2) 不相同

    3) 不相同

8. 习题 9-14

    解   建成的树:

删去 50:

52 68

20 30 60 70

F F F

删去 68:

52

20 30 60 70
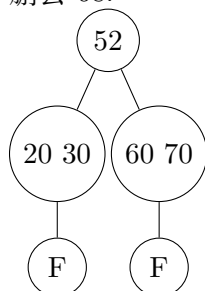
F F

9. 习题 9-19

解 平均长度为:

$$\frac{1}{8}(1+1+1+1+2+2+6+3) = \frac{17}{8}$$

10. 习题 9-24

11. 习题 10-1

1) (087,503,061,512,170,897,275,653,426,908)
   (087,061,503,170,512,275,653,426,897,908)
   (061,087,170,503,275,512,426,653,897,908)
   (061,087,170,275,426,503,512,653,897,908)

2) (170,087,275,049,426,503,897,512,653,908)
   (170,049,275,087,426,503,653,512,897,908)
   (049,087,170,275,426,503,512,653,897,908)

3) (087,061,170,275,426)(503)(512,908,897,653)
   (061)(087)(170,275,426)(503)(512)(908,897,653)
   (061)(087)(170)(275,426)(503)(512)(897,653)(908)
   (061)(087)(170)(275)(426)(503)(512)(653)(897)(908)
   (061,087,170,275,426,503,512,653,897,908)

5) (503)(087)(512)(061)(908)(170)(897)(275)(653)(426)
   (503)(087)(512)(061,908)(170)(897)(275)(426,653)
   (087,503)(061,512,908)(170,897)(275,426,653)
   (061,087,503,512,908)(170,275,426,653,897)
   (061,087,170,275,426,503,512,653,897,908)

12. 习题 10-3

    解 堆排序、快速排序、希尔排序是不稳定的排序算法，而基数排序、插入排序、归并排序是稳定的排序算法。

    希尔排序:2,2,1,3

    快速排序:2,1,1,3

13. 习题 10-15

14. 习题 10-21

15. 习题 11-1

16. 习题 11-2

17. 习题 11-5

18. 习题 11-11