

Lab 05.

Algorithm & Recursive

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Outline

- ▶ Exam
- ▶ Hw.4 Special Case
- ▶ Recursive & Time Complexity
- ▶ Practice

Exam @ 共同 & 管一三樓電腦教室

- ▶ 本周一範圍 With searching and sorting
- ▶ 管院(非資管系) & 經濟系：管院三樓電腦教室
- ▶ 其他系所 + 資管系：共同 101
- ▶ 考古題？

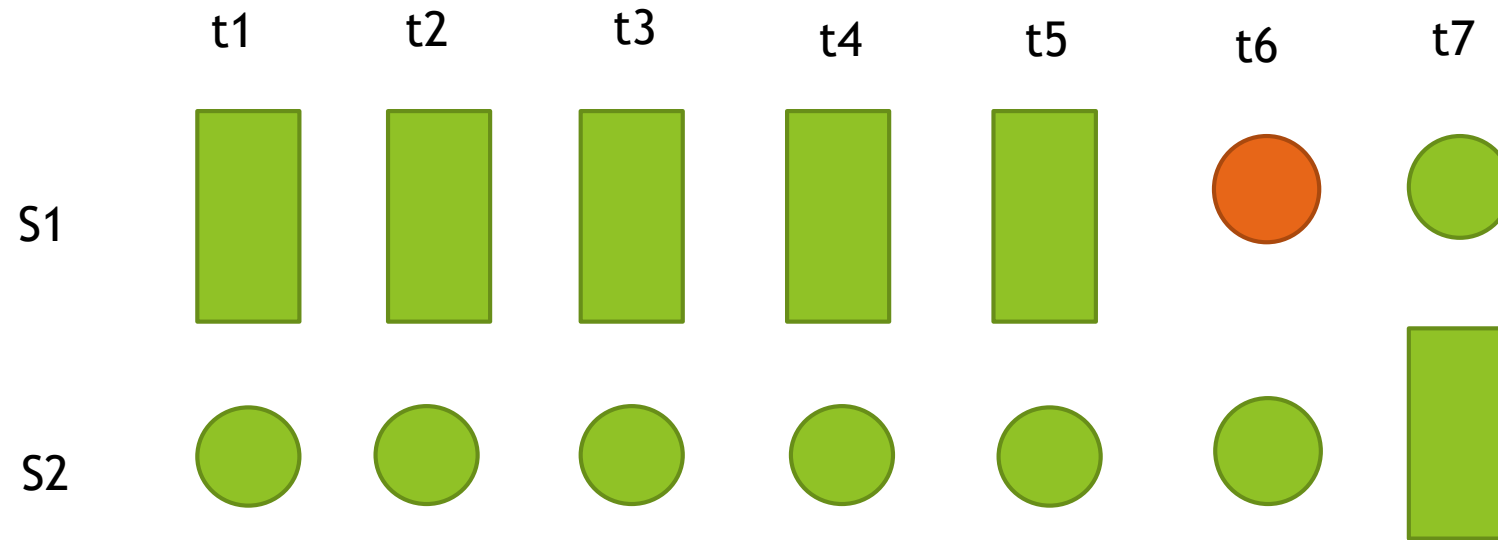
Hw. Review

- ▶ Run Time Error ?
- ▶ Array ?

```
1  int array[100];  
2  for(int i=1; i<=100;i++){  
3      array[i] .....  
4  }  
5  a[100]
```

- ▶ Hw.4 Problem 3. Problem 4.

Hw4 -Problem4 - Special Case



Algorithm & Complexity

- ▶ Algorithm ?
 - ▶ Time / Space Complexity
- ▶ Worst Case
- ▶ Big O Notation E.g. $O(n)$
- ▶ Find Loop

Time Count

- ▶ `# include<ctime>`
- ▶ `clock_t / clock()`
- ▶ `CLOCK_PER_SEC`

Practice: Joseph Ring

- ▶ N 個人排成一個圓圈，從第一個人開始每 K 個人離開，請問最後留下的人編號為？ ($K = 2$)

Recursive Solve

- ▶ $F(n) = F(n-1) + 2$?
- ▶ $O(1)$?