



Chapter 4 Labs

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Lab 1

❑ Input a string to represent an ID, please show that this ID is “valid” or “invalid”.

➤ Hint: validation rules

<https://zh.wikipedia.org/wiki/中華民國國民身分證#驗證規則>

❑ Sample Input:

A123456789

❑ Sample Output:

valid



Lab 2

□ 輸入一個數 n ，印出一個高為 n ，底部寬為 $2n - 1$ 的金字塔，並顯示這個金字塔包含幾個星號

□ Sample Input:

3

□ Sample Output:

*

* * *

* * * * *

9



Lab 3

- ❑ Give the first few numbers of the series are 0, 1, 1, 2, 3, 5, 8, Except for the first two terms of the sequence, every other term is the sum of the previous two terms, for example, $8 = 3 + 5$ (addition of 3 and 5). And Given an Input number n , print n -th Number.
- ❑ Sample Input:
9
- ❑ Sample Output:
34



Lab 4

- ❑ Input a number n from keyboard, then input n numbers to represent the year and check if the given year is a leap year or not



Lab 4

☐ Sample Input:

4

2020

1900

978

2000

☐ Sample Output:

yes

no

no

yes



Lab 5

❑ 假設在某商店中購物，輸入 n 表示所應付款的金額及實際交給店員的金額 m ，輸出則為應找回最少的鈔票數與錢幣數，如果交給店員的金額少於應付金額，則印出“Insufficient amount”字串。（假設幣值只有1000、500、100、50、10、5、與1元）

❑ Sample Input:

33 1000

33 30

❑ Sample Output:

1*500 4*100 1*50 1*10 1*5 2*1

Insufficient amount