C 程式設計題

命題者：TWK

題目名稱(中文/英文)：Breakdown ISBN

主要測試觀念： 基礎 formatted I/O

Basics	Decision and Loops	Functions
☐ Keywords and Identifier	☐ Programming if...else	☐ User-defined Functions
☐ Variables and Constants	☐ Programming for Loops	☐ Function Types
☐ Programming Data Types	☐ do...while Loops	☐ Programming recursion
☐ Expressions	☐ break and continue	☐ Storage Class (variable life)
■ Basic Input/Output	☐ switch...case Statement	
☐ Programming Operators	☐ Programming goto	

Arrays and Strings	Pointers	Structure and Union
☐ Arrays	☐ Pointers And Arrays	☐ Structures and Pointers
☐ Multi-dimensional Arrays	☐ Pointers And Functions	☐ Structure and Function
☐ Arrays and Functions	☐ Dynamic Memory Allocations	☐ Programming Unions
☐ Strings and Functions		

Files I/O	Miscellaneous	Other
☐ Files Input/Output basics	☐ Enumeration	☐ Programming logic training
☐ Character I/O and String I/O	☐ Preprocessor	☐ Programming structure/design
☐ Block I/O	☐ Low level programming	training
☐ Advanced File I/O	☐ Error handling	☐ Localization issues
manipulations	☐ Standard/advanced library	☐ _____

題目說明： Books are identified by an International Standard Book Number (ISBN). ISBNs assigned after January 1, 2007 contain 13 digits, arranged in five groups, such as 978-11-393-97950-3. (Older 1SBNs use 10 digits.) The first group {the GS1 prefix) is currently either 973 or 979. The group identifier specifies the language or country of origin (for example, 0 and 1 are used in English-speaking countries). The publisher code identities the publisher (393 is the code for W. W. Norton). The item number is assigned by the publisher to identify a specific book (97950 is the code for this book). An ISBN ends with a check digit that's used to verify the accuracy of the preceding digits. Write a program that breaks down an ISBN

輸入說明： 例如，輸入 ISBN: 978-0-393-97950-3

輸出說明： 則輸出：

```
GS1 prefix: 978
Group identifier: 0
Publisher code: 393
Item number: 97950
```

```
        Check bit: 3
```
Note: The number of digits in each group may vary; you can't assume that groups have the
　　　lengths shown in this example.

IO 範例 :

	Sample Input	Sample Output
第一組測資與輸出	978-0-393-97950-3	GS1 prefix: 978 Group identifier: 0 Publisher code: 393 Item number: 97950 Check bit: 3
第二組	979-0-393-96945-2	GS1 prefix: 979 Group identifier: 0 Publisher code: 393 Item number: 96945 Check bit: 2
...		

附屬資料：
☑解答程式：BreakdownISBN.c（檔名）
☑測試資料：input.txt, output.txt

■ 易，僅需用到基礎程式設計語法與結構（如單迴圈等）
□ 中，需用到多項程式設計語法與結構（如雙層迴圈等）
□ 難，需用到多項程式結構或較為複雜之資料型態或結構（如遞迴、串連
　　等）

解題時間： 10 分鐘。

其他註記：