

C 程式設計題

命題者：TWK

題目名稱(中文/英文)：Guess four digits numbers

主要測試觀念：

Basics	Decision and Loops	Functions
<input type="checkbox"/> Keywords and Identifier <input type="checkbox"/> Variables and Constants <input type="checkbox"/> Programming Data Types <input type="checkbox"/> Expressions <input type="checkbox"/> Basic Input/Output <input type="checkbox"/> Programming Operators	<input type="checkbox"/> Programming if...else <input checked="" type="checkbox"/> Programming for Loops <input type="checkbox"/> do...while Loops <input type="checkbox"/> break and continue <input type="checkbox"/> switch...case Statement <input type="checkbox"/> Programming goto	<input checked="" type="checkbox"/> User-defined Functions <input type="checkbox"/> Function Types <input type="checkbox"/> Programming recursion <input type="checkbox"/> Storage Class (variable life)
Arrays and Strings	Pointers	Structure and Union
<input type="checkbox"/> Arrays <input type="checkbox"/> Multi-dimensional Arrays <input type="checkbox"/> Arrays and Functions <input type="checkbox"/> Strings and Functions	<input type="checkbox"/> Pointers And Arrays <input type="checkbox"/> Pointers And Functions <input type="checkbox"/> Dynamic Memory Allocations	<input type="checkbox"/> Structures and Pointers <input type="checkbox"/> Structure and Function <input type="checkbox"/> Programming Unions
Files I/O	Miscellaneous	Other
<input type="checkbox"/> Files Input/Output basics <input type="checkbox"/> Character I/O and String I/O <input type="checkbox"/> Block I/O <input type="checkbox"/> Advanced File I/O manipulations	<input type="checkbox"/> Enumeration <input type="checkbox"/> Preprocessor <input type="checkbox"/> Low level programming <input type="checkbox"/> Error handling <input type="checkbox"/> Standard/advanced library	<input type="checkbox"/> Programming logic training <input type="checkbox"/> Programming structure/design training <input type="checkbox"/> Localization issues <input type="checkbox"/> _____

題目說明： Your program randomly generates a 4-digit integer number without duplicate digits and the player could guess the 4-digit number in 10 times. At each attempt, your program replies x digits have you guessed on the same position; namely xA , and y digits you have guessed on a different position; namely yB . Of course, the program terminate if all 4-digit integer has matched (means 4A).

輸入說明： 4-digit integer number without duplicate digits.

輸出說明： $xAyB$

I/O 範例：

測資與輸出	Sample Input	Sample Output
第一組	可以用 OJ 評斷嗎?	
第二組		
第三組		

附屬資料：

☒ 解答程式：Guess4DigitNumbers.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：30 分鐘。
其他註記：