

淡江大學電機工程學系 106 學年度韌體實驗題目

4. 【迴文詞/Palindromes】

輸入一個字串，判斷它是否為迴文串以及鏡像串。輸入字串保證不含數字 0。所謂迴文串就是反轉以後和原串相同，如 abba 和 madam。所謂鏡像串，就是左右鏡像之後和原串相同，如 2S 和 3AIAE。注意，並不是每個字元在鏡像之後都能得到一個合法字元。在本題中，每個字元的鏡像如下表所示（空白項表示該字元鏡像後不能得到一個合法字元）。

Character	Reverse	Character	Reverse	Character	Reverse
A	A	M	M	Y	Y
B		N		Z	5
C		O	O	1	1
D		P		2	S
E	3	Q		3	E
F		R		4	
G		S	2	5	Z
H	H	T	T	6	
I	I	U	U	7	
J	L	V	V	8	8
K		W	U	9	
L	J	X	X		

鏡像字元

輸入的每行包含一個字串（至多只有 20 個字元；且保證只有上述合法字元，不含空白字元），判斷它是否為迴文串和鏡像串（共 4 種組合）。每組資料之後輸出一個空行。

輸入（註 1）：

NOTAPALINDROME

ISAPALINILAPASI

2A3MEAS

ATOYOTA

輸出（註 2）：

NOTAPALINDROME -- is not a palindrome.

ISAPALINILAPASI -- is a regular palindrome.

2A3MEAS -- is a mirrored string.

ATOYOTA -- is a mirrored palindrome.

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(註 1)

Input

Input consists of strings (one per line) each of which will consist of one to twenty valid characters. There will be no invalid characters in any of the strings. Your program should read to the end of file.

(註 2)

Output

For each input string, you should print the string starting in column 1 immediately followed by exactly one of the following strings.

STRING	CRITERIA
' -- is not a palindrome.'	if the string is not a palindrome and is not a mirrored string
' -- is a regular palindrome.'	if the string is a palindrome and is not a mirrored string
' -- is a mirrored string.'	if the string is not a palindrome and is a mirrored string
' -- is a mirrored palindrome.'	if the string is a palindrome and is a mirrored string

Note that the output line is to include the '-'s and spacing exactly as shown in the table above and demonstrated in the Sample Output below.

In addition, after each output line, you must print an empty line.