Write 2 pascal programs on string manipulation for the following tasks:

Task 1 – use of length function

Task 2 – use of ORD and CHR functions

Task 1: Hangman

Hangman is a word guessing game. The game is played using a hidden English word H. Initially all its letters are hidden, but the player will know its length (the number of letters in the word). Next, the player will guess letters one by one. If H contains the letter guessed, the letter and the position(s) will be revealed. For example, if H = abacus and the player guesses a, a_a___ will be shown to the player. The player will make guesses repeatedly until the all letters in H are revealed.

Write a program to simulate the game.

INPUT AND OUTPUT

The first line contains an English word H. It contains only lowercase English letters (no spaces) and its length is between 1 and 20 (inclusive).

At this time, you may print some blank lines in order to hide the word entered.

Then, input the guessing sequence. They are given as lowercase letters one by one in separate lines. The letters are distinct. After each letter entered, reveal the suitable letters and output the result in a separate line with hidden letters replaced by underscores _.

Your program should end when the game ends (all letters have been revealed).

SAMPLE TESTS

	Input	Output
1	abacus	a_a___
	a	a_a___
	e	a_a_u_
	u	a_a_us
	s	a_a_us
	g	aba_us
	b	abacus
	c	

Tasks 2 – Check Digit Calculation

The Hong Kong Identity Card consists of 1 or 2 English letter(s) and 6 numeric digits. A check digit, which could be 0 to 9 or A, is appended in brackets. It is calculated as follows:

- For letters, A is converted to value 10, B to value 11, and so on. (Similar to base 36).
- If there are two letters, i.e. $L_1L_2D_1D_2D_3D_4D_5D_6$. The sum is $s = 9L_1 + 8L_2 + 7D_1 + 6D_2 + 5D_3 + 4D_4 + 3D_5 + 2D_6$.
- If there is one letter, i.e. $LD_1D_2D_3D_4D_5D_6$. The sum is $s = 9 \times 36 + 8L + 7D_1 + 6D_2 + 5D_3 + 4D_4 + 3D_5 + 2D_6$.
- The check digit c shall be the smallest non-negative integer such that $s + c \equiv 0 \pmod{11}$. If c is 10, A is used instead.

Write a program to calculate the check digit.

INPUT AND OUTPUT

The input consists of the partial HKID number: 1 or 2 English letter(s) followed by 6 numeric digits.

Output the full HKID number including the check digit in brackets.

SAMPLE TESTS

	Input	Output
1	A123456	A123456(3)
2	XY987654	XY987654(8)
3	G000000	G000000(A)