Morse code   P75697_en
Quart Concurs de Programació de la UPC - Semifinal (2006-09-20)

A	.-
B	-...
C	-.-.
D	-..
E	.
F	..-.
G	--.
H	....
I	..
J	.---
K	-.-
L	.-..
M	--
N	-.
O	---
P	.--.
Q	--.-
R	.-.
S	...
T	-
U	..-
V	...-
W	.--
X	-..-
Y	-.--
Z	--..

Morse code is an old method for transmitting text messages, using only dots ('.') and dashes ('-'). The table to the right shows the corresponce between each letter and its code.

Note that Morse code is not prefix-free; therefore, something must be done to distinguish the start of every letter. In this problem, we prefix every code of length ℓ with ℓ dots, followed by one dash. For instance, the letter 'T' is codified ".--", the letter 'E' is codified ".-.", and the letter 'A' is codified "..-.-". Hence, the codification of "TEA" is ".--.-...-.-". We also add the 'empty codification' "-" to denote a space.

Your task is simple: decode every given line of Morse code.

Input

Input consists of several lines of Morse code.

Output

Print every line once decoded.

Sample input

```
..-.-....--......--.-....--.-....-.-.......--....-.......-..
....-.---..--.-....-......-.......---.--.-....-.-.............---.-....-.
...--..--.....-.-....-.-..-.-......-.....----.--....--...---..
...--.-....-.-..-.--...-----..-.-.....-.........--..
```

Sample output

```
ABCDEFGHI
JKLMNOPQR
STUVWXYZ
HI WORLD
```

Problem information

Author : Salvador Roura
Generation : 2013-09-02 15:38:30