Morse code

Wersja polska English version

Translate given text into the Morse code.

Input

There are indefinite number of lines. In each of them there are numbers '0'-'9', letters 'A'-'Z' and spaces.

Output

For each character print it in the Morse code.

Example

Input:
DO YOUR BEST
1 PLUS 1 EQUALS 2
Output:
-.. --- -.-- --- ..- .-. -... . ... -
.---- .--. .-.. ..- ... .---- . --.- ..- .- .-.. ... ..---