Time limit: 2.0s **Memory limit:** 64M

Braille is a well-known writing system used by the visually impaired. In the Braille alphabet, each character is represented by a rectangle 3 units high and 2 units wide, and each cell in the rectangle can either contain a dot () or be blank (). The translations from English to Braille characters are as follows:

English	Braille	English	Braille	English	Braille
А	0.	K	0. 0.	U	0. 00
В	0. 0.	L	0. 0. 0.	V	0. 0. 00
С	00	M	00 0.	W	. 0 00 . 0
D	00	N	00 .0 0.	X	00 00
Е	0. .0	0	0. .0 0.	Y	00 .0 00
F	00 0.	Р	00 0. 0.	Z	0. .0 00
G	00 00 	Q	00 00 0.	(space)	
Н	0. 00	R	0. 00 0.		
I	.0	S	.0 0. 0.		
J	.0	Т	.0 00 0.		

To make sure the DMPG problems are accessible by everyone, Roger has decided to create and print Braille translations of them. Please help him do this!

Input Specification

One line consisting of no more than $1\,000$ characters, all of which are either uppercase English letters or spaces.

Output Specification

The Braille translation of the given string, on three lines. There should not be any spaces between the Braille characters.

Sample Input

BRAILLE IS A WELL KNOWN

Sample Output