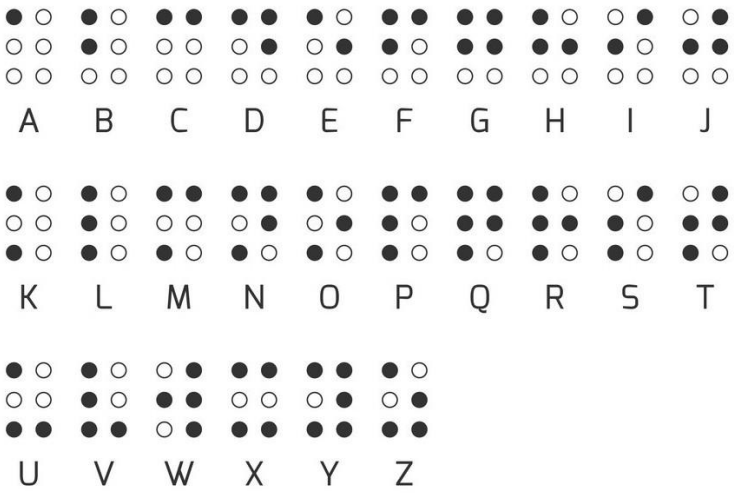
27 Tactile Writing

15 points

Introduction

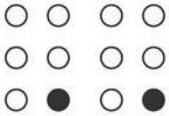
Louis Braille developed in 1829 a tactile writing system for visually impaired people. This system represents symbols with units of space known as braille cells. A full braille cell consists of six raised dots arranged in two columns, with three dots in each. A total of sixty-four combinations are possible using one or more of these six dots. A braille cell can be used to represent an alphabet letter, number, punctuation mark, or even a whole word.

These are the braille symbols for the English braille alphabet:



Although braille does not have a separate alphabet of capital letters as there is in print writing systems, a capital letter is designated by placing the following cell in front of a letter:

To capitalize a whole word, place two of these in front of the word:



Can you code a simple program to translate a text written in regular English characters to the Braille English alphabet? The filled and empty dots will be replaced by the characters "*" and "." respectively. And do not forget about processing any white space in the input text.

Input

A message written in English characters.

Output

The message translated to the Braille English alphabet.

Example 1

Input

```
HELLO WORLD
```

Output

```
....*.*.*.*.*. .....**.*.*.**
....**.**.*..* ....**.****..*
.*.*....*.*.*. .*.*.**.*.*...
```

Example 2

Input

```
This is sample written in Braille
```

Output

```
...**..*.* .*.* *. .**.*****.*. .**..*.*.**.** .*** ..*.*.*..**.*.*.
..*****.*. *.*. .. *.....*.*..* *****.****.*.* *..* ..*.**..*.*.*..*
.**.....*. ..*. .. *...*.*.*... .**...*.*...*. ..*. .*..*.....*.*...
```