

1252 - The Seven Percent Solution

Description

Uniform Resource Identifiers (or URIs) are strings like `http://icpc.baylor.edu/icpc/`, `mailto:foo@bar.org`, `ftp://127.0.0.1/pub/linux`, or even just `readme.txt` that are used to identify a resource, usually on the Internet or a local computer. Certain characters are reserved within URIs, and if a reserved character is part of an identifier then it must be percent-encoded by replacing it with a percent sign followed by two hexadecimal digits representing the ASCII code of the character. A table of seven reserved characters and their encodings is shown below. Your job is to write a program that can percent-encode a string of characters.

Character	Encoding
" " (space)	%20
"!" (exclamation point)	%21
"\$" (dollar sign)	%24
"%" (percent sign)	%25
"(" (left parenthesis)	%28
")" (right parenthesis)	%29
"*" (asterisk)	%2a

Input specification

The input consists of one or more strings, each 1-79 characters long and on a line by itself, followed by a line containing only `"#"` that signals the end of the input. The character `"#"` is used only as an end-of-input marker and will not appear anywhere else in the input. A string may contain spaces, but not at the beginning or end of the string, and there will never be two or more consecutive spaces.

Output specification

For each input string, replace every occurrence of a reserved character in the table above by its percent-encoding, exactly as shown, and output the resulting

string on a line by itself. Note that the percent-encoding for an asterisk is %2a (with a lowercase "a") rather than %2A (with an uppercase "A").

Sample input

```
Happy Joy Joy!
http://icpc.baylor.edu/icpc/
plain_vanilla
(**)
?
the 7% solution
#
```

Sample output

```
Happy%20Joy%20Joy%21
http://icpc.baylor.edu/icpc/
plain_vanilla
%28%2a%2a%29
?
the%207%25%20solution
```

Hint(s)

Source	ACM Mid-Central Regional Programming Contest 2007
Added by	ejaltuna
Addition date	2011-10-13 08:07:18.0
Time limit (ms)	1000
Test limit (ms)	1000
Memory limit (kb)	131072
Output limit (mb)	64
Size limit (bytes)	100000
Enabled languages	C C# C++ Java Pascal Perl PHP Python Ruby Text