Problem B: The Seven Percent Solution

Source file: `percent.{c, cpp, java}`

Input file: `percent.in`

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: 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: 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").

Example input:	Example output:

```Happy Joy Joy!```
```http://icpc.baylor.edu/icpc/```
```plain_vanilla```
```(**)```
```?```
```the 7% solution```
```#```
	```Happy%20Joy%20Joy%21```
	```http://icpc.baylor.edu/icpc/```
	```plain_vanilla```
	```%28%2a%2a%29```
	```?```
	```the%207%25%20solution```

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