

Mark-up languages are computer languages that assist in the formatting of text files. Special keywords are used to mark the text to allow control of fonts, page styles, paragraph styles, etc. T_EX, troff, and HTML are examples of mark-up languages.

Spell checking can be difficult to adapt to these special texts. In general, special processors or spell checkers must be created in order to accommodate mark-up languages. A special processor would recognize the mark-up language and strip it from the text so that the “plain” text could then be processed by a spell checker. For this problem, you are to write such a processor for a small mark-up language so that the output of your program will be the plain text without the mark-ups.

The mark-up language to consider is one which allows the modification of fonts within the text. Each markup command will be preceded by a \ character. If the letter following the \ character is not a recognized command from the table below then the character following the \ is printed as part of the plain text. For instance, the mark-up \\ can be used to print a single \.

- `\b` toggle bold font on/off (default state is off)
- `\i` toggle italics font on/off (default state is off)
- `\s` set font size; the `s` is immediately followed by an optional number; if the number is missing then the command will restore the previous size
- `*` toggle processing of mark-ups on/off; if processing is toggled off then mark-ups are considered to be literal text (default state is on)

The number following the `\s` command can have a decimal point so 12, 9.5, 11., and .5 should all be recognized as valid numbers.

Input and Output

The input file will be plain text containing mark-ups from the language above. At the start, processing of mark-ups should be on. The file should be processed until the end-of-file is encountered.

Sample Input

```
\s18.\bMARKUP sample\b\s
```

```
\*For bold statements use the \b command.\*
```

```
If you wish to \i emphasize\i something use the \i command.
```

```
For titles use \s14BIG\s font sizes, 14 points usually works well.
```

```
Remember that all of the commands toggle except for the \s command.
```

Sample Output

```
MARKUP sample
```

```
For bold statements use the \b command.
```

```
If you wish to emphasize something use the \i command.
```

```
For titles use BIG font sizes, 14 points usually works well.
```

```
Remember that all of the commands toggle except for the \s command.
```