
Trees — Printing a tree

P21036_en

Write a program that reads a binary tree of words, and that prints it following the format of the sample.

Input

Input consists of the description of a tree, which is a preorder traversal of its words, marking the empty trees with '-1'. You can assume that the given words have less than ten letters.

Output

Your program must print the tree following the format of the sample. Notice that each level of the tree is printed using ten characters.

Sample input

```
va tenir sis -1 polls -1 -1 xics -1 -1 pics  
pellarics -1 -1 camatorts i -1 becarics -1 -1 -1
```

Sample output

```
                camatorts
                   becarics
                      i
                 pics
                pellarics
           va
                xics
            tenir
                   sis
                polls
```

Problem information

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