**ZOJ Problem Set - 1635**

Directory Listing

Time Limit: 1 Second      Memory Limit: 32768 KB

Given a tree of UNIX directories and file/directory sizes, you are supposed to list them as a tree with proper indention and sizes.

**Input**

The input consists of several test cases. Each case consists of several lines which represent the levels of the directory tree. The first line contains the root file/directory. If it is a directory, then its children will be listed in the second line, inside a pair of parentheses. Similarly, if any of its children is a directory, then the contents of that directory will be listed in the next line, inside a pair of parentheses. The format of a file/directory is:

**name size** or **\*name size**

where **name**, the name of the file/directory, is a string of no more than 10 characters; **size** > 0 is the integer size of the file/directory; **\*** means the **name** is a directory. It is guaranteed that **name** will not contain characters '(', ')', '[', ']', and '\*'. There are no more than 10 levels for each case, and no more than 10 files/directories on each level.

**Output**

For each test case, list the tree in the format shown by the sample. Files/directories that are of depth **d** will have their names indented by 8**d** spaces. Do NOT print tabs to indent the output. The size of a directory D is the sum of the sizes of all the files/directories in D, plus its own size.

**Sample Input**

\*/usr 1

(\*mark 1 \*alex 1)

(hw.c 3 \*course 1) (hw.c 5)

(aa.txt 12)

\*/usr 1

()

**Sample Output**

|\_\*/usr[24]

|\_\*mark[17]

| |\_hw.c[3]

| |\_\*course[13]

| |\_aa.txt[12]

|\_\*alex[6]

|\_hw.c[5]

|\_\*/usr[1]