I2F03. Level order traversal of a binary tree   P99488_en
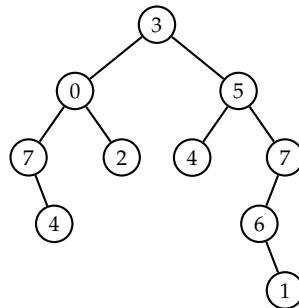
Your task is to write a program that reads a non empty binary tree of natural numbers, and prints its level order traversal (that is, from top to bottom and from left to right), with a line for each level.

For instance,

```
level 1:  3
level 2:  0 5
level 3:  7 2 4 7
level 4:  4 6
level 5:  1
```

is the level order traversal of the tree

Input

The input consists of the description of non empty a binary tree of natural numbers as it is explained at the exercise of the subject collection.

Output

Your program must print as many lines as levels, with the level order traversal of the tree. Follow the format of the instances.

Sample input 1

```
10
3 0 7 -1 4 -1 -1 2 -1 -1 5
4 -1 -1 7 6 -1 1 -1 -1 -1
```

Sample output 1

```
level 1: 3
level 2: 0 5
level 3: 7 2 4 7
level 4: 4 6
level 5: 1
```

Sample input 2

```
1
7 -1 -1
```

Sample output 2

```
level 1: 7
```

Sample input 3

```
4
9 -1 8 7 -1 6 -1 -1 -1
```

Sample output 3

```
level 1: 9
level 2: 8
level 3: 7
level 4: 6
```

Problem information

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