Practice Arena

Practice problems aimed to improve your coding skills.

- PRACTICE-02_SCAN-PRINT
- PRACTICE-03_TYPES
- LAB-PRAC-02_SCAN-PRINT
- LAB-PRAC-01
- PRACTICE-04_COND
- BONUS-PRAC-02
- LAB-PRAC-03_TYPES
- PRACTICE-05_COND-LOOPS
- LAB-PRAC-04_COND
- LAB-PRAC-05_CONDLOOPS
- PRACTICE-07_LOOPS-ARR
- LAB-PRAC-06_LOOPS
- LAB-PRAC-07_LOOPS-ARR
  - Home Alone
  - Arrangements with Arrays
  - Overlapping Patterns
  - Lucky Draw
  - Diamond Array
  - Linear Leap
  - Candy Crush
  - Nested Safes
  - Heros Arc
  - Linear Loopy Maze
  - Histogram Heights
  - Changing Times
- LABEXAM-PRAC-01_MIDSEM
- PRACTICE-09_PTR-MAT
- LAB-PRAC-08_ARR-STR
- PRACTICE-10_MAT-FUN
- LAB-PRAC-09_PTR-MAT
- LAB-PRAC-10_MAT-FUN
- PRACTICE-11_FUN-PTR
- LAB-PRAC-11_FUN-PTR
- LAB-PRAC-12_FUN-STRUC
- LABEXAM-PRAC-02_ENDSEM
- LAB-PRAC-13_STRUC-NUM
- LAB-PRAC-14_SORT-MISC

Nested Safes

LAB-PRAC-07_LOOPS-ARR

Nested Safes [20 marks]

Problem Statement
In the first week lab, we enclosed a number inside a safe. In the second week lab, we took numbers out of the safes and added them. This week we will build even stronger safes.

In the first line of the input you will be given a **strictly positive integer** n. We promise that n will be less than or equal to 10. In the next line we will give you n digits (as non-negative integers) separated by a space. You have to build a nested safe out of these digits as shown below.

Caution

1. Be careful about extra/missing lines and extra/missing spaces.
2. There is a single space between any two digits on any line. However, there are no trailing spaces at the end of any line nor are there any trailing new lines.

HINTS: You will require the use of arrays for this question.

EXAMPLE:
INPUT
3
1 2 3

OUTPUT:
1 1 1 1 1 1
1 2 2 2 2 1
1 2 3 3 2 1
1 2 3 3 2 1
1 2 2 2 2 1
1 1 1 1 1 1

Explanation>: The safe has 3 layers since n = 3. The outer most layer is the first element of the list i.e. 1, the middle layer is the second element of the list i.e. 2 and the inner most layer is the third element of the list, i.e. 3. Note that there is a single space between any two digits but no trailing spaces at the end of any line, nor are there any trailing new lines after the last line.

Grading Scheme:
Total marks: **[20 Points]**

There will be partial grading in this question. Printing each line correctly, in the correct order, carries some weightage. All lines have equal weightage i.e. if there are 4 lines in the expected output, each is worth 25% weightage. If there are 5 lines in the expected output, each is worth 20% weightage. Each visible test case is worth 2 points and each hidden test case is worth 4 points. There are 2 visible and 4 hidden test cases.

Please remember, however, that when you press Submit/Evaluate, you will get a green bar only if all parts of your answer are correct. Thus, if your answer is only partly correct, Prutor will say that you have not passed that test case completely, but when we do autograding afterwards, you will get partial marks.

Start Solving! (/editor/practice/6144)