



# 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\_CONDDLOOPS
- 📁 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

# Diamond Array

## LAB-PRAC-07\_LOOPS-ARR

**Diamond Array [20 marks]**

---

**Problem Statement**

On the first line of the input, you will be given a **strictly positive odd integer**  $n$ . We promise that  $n$  will be less than 10. In the next line of the input, you will be given  $n$  integers, separated by a space. You have to print a beautiful design described below.

**Caution**

1. Be careful about extra/missing lines and extra/missing spaces. There should be no trailing spaces at the end of any line nor should there be any extra new lines.
2. Be very careful, even though the evaluation may give you marks for extra spaces and newlines, the autograder will give you zero marks for any extra spaces or new lines.

**HINTS:**

1. You may require the use of arrays in this question.
- 

**EXAMPLE:**

INPUT

```
3
1 3 5
```

OUTPUT:

```
3
135
3
```

**Explanation:** There are 3 lines in the output since  $n = 3$ . The first line is a space followed by 3 (no trailing spaces after 3). The second line has 135 (no spaces between the numbers 1, 3, and 5 and no trailing spaces after 5). The last line has a space followed by 3 (no trailing spaces after 3).

---

**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.

 **Start Solving!** (/editor/practice/6141)