A Good Set Problem Code: **GOODSET**

A set of integers is called *good* if there does not exist three distinct elements a, b, c in it such that a + b = c.

Your task is simple. Just output any *good* set of **n** integers. All the elements in this set should be distinct and should lie between 1 and 500, both inclusive.

Input

- The first line of the input contains an integer **T** denoting number of test cases. The descriptions of **T** test cases follow.
- The only line of each test case contains an integer **n**, denoting the size of the needed *good* set.

Output

For each test case, output a single line containing **n** integers denoting the elements of the *good* set, in any order. There can be more than one possible good set, and you can output any one of them.

Constraints

- 1 ≤ **T, n** ≤ 100

Subtasks

- **Subtask #1 (50 points)**: 1 ≤ **T, n** ≤ 10
- **Subtask #2 (50 points)**: original constraints

Example

Input

```
5
1
2
3
4
5
```

Output

```
7

1 2

1 2 4

1 2 4 16

3 2 15 6 10
```

Explanation

Example 1 and 2. Any set of size less than or equal to 2 is good by definition.

Example 3 onwards. For each pair of elements in the set, you can see that their sum doesn't exist in the set.