For some fixed n, an array nums is *beautiful* if it is a permutation of the integers 1, 2, ..., n, such that:

For every i < j, there is **no** k with i < k < j such that nums[k] \* 2 = nums[i] + nums[j].

Given n, return **any** beautiful array nums.  (It is guaranteed that one exists.)

**Example 1:**

**Input:** n = 4

**Output:** [2,1,4,3]

**Example 2:**

**Input:** n = 5

**Output:** [3,1,2,5,4]

**Note:**

* 1 <= n <= 1000