**Juggler Sequence**

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Juggler Sequence is a series of integer number in which the first term starts with a positive integer number *a* and the remaining terms are generated from the immediate previous term using the below recurrence relation:  
  
 a_(k+1)={|_a_k^(1/2)_|   for even a_k; |_a_k^(3/2)_|   for odd a_k,   
  
Given a number *N* your task is to print the space separated Juggler Sequence for this number as the first term of the sequence.

Examples:

Input: 9

Output: 9, 27, 140, 11, 36, 6, 2, 1

We start with 9 and use above formula to get

next terms.

Input: 6

Output: 6, 2, 1

**Input:**  
The first line of input contains an integer T denoting the no of test cases. Then T test cases follow. Each line contains an integer N.  
  
**Output:**  
For each test case in a new line print the space separated juggler sequence for  number N as the first term of the sequence.  
  
**Constraints:**  
1<=T<=100  
1<=N<=100  
  
**Example:  
Input:**  
2  
9  
6  
**Output:**  
9  27 140 11 36 6 2 1  
6 2 1

\*\*For More Examples Use Expected Output\*\*

<http://practice.geeksforgeeks.org/problems/juggler-sequence/0>

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package javaapplication249;

import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

import java.util.ArrayList;

import java.util.Arrays;

import java.util.Collections;

import java.util.HashSet;

/\*\*

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\* @author Administrador

\*/

public class JavaApplication249 {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) throws IOException {

// TODO code application logic here

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

int t = Integer.parseInt(br.readLine());

while(t-- > 0) {

int n = Integer.parseInt(br.readLine());

ArrayList<Integer> lista = new ArrayList<Integer>();

lista.add(n);

for(int i =1; ; i++) {

if(lista.get(i-1) == 1) {

break;

}

if(lista.get(i-1) %2 ==0) {

lista.add((int)Math.pow(lista.get(i-1), 0.5));

}else{

lista.add((int)Math.pow(lista.get(i-1), 1.5));

}

}

for(int i =0; i<lista.size(); i++) {

System.out.print(lista.get(i) + " ");

}

System.out.println();

}

}

}