

Problem J. Boundary

Source file name: Boundary.cpp, Boundary.java, Boundary.py

Input: Standard Output: Standard

Bethany would like to tile her bathroom. The bathroom has width w centimeters and length l centimeters. If Bethany simply used the basic tiles of size 1×1 centimeters, she would use $w \cdot l$ of them.

However, she has something different in mind.

- On the interior of the floor she wants to use the 1×1 tiles. She needs exactly $(w-2) \cdot (l-2)$ of these.
- On the floor boundary she wants to use tiles of size $1 \times a$ for some positive integer a. The tiles can also be rotated by 90 degrees.

For which values of a can Bethany tile the bathroom floor as described? Note that a can also be 1.

Input

Each test contains multiple test cases. The first line contains an integer t ($1 \le t \le 100$) – the number of test cases. The descriptions of the t test cases follow.

Each test case consist of a single line, which contains two integers w, l ($3 \le w$, $l \le 10^9$) – the dimensions of the bathroom.

Output

For each test case, print an integer k $(0 \le k)$ – the number of valid values of a for the given test case – followed by k integers a_1, a_2, \ldots, a_k $(1 \le a_i)$ – the valid values of a. The values a_1, a_2, \ldots, a_k have to be sorted from smallest to largest.

It is guaranteed that under the problem constraints, the output contains at most $2 \cdot 10^5$ integers.

Example

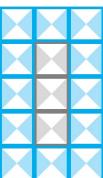
Input	Output
3	3 1 2 3
3 5	3 1 2 11
12 12	2 1 2
314159265 358979323	



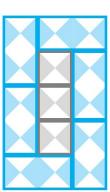
Explanation

In the first test case, the bathroom is 3 centimeters wide and 5 centimeters long. There are three values of a such that Bethany can tile the floor as described in the statement, namely a = 1, a = 2 and a = 3. The three tilings are represented in the following pictures.





$$a=2$$



$$a = 3$$

