Problem E. Nice sequence

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

At their leisure time Tima and Kanat play with sequences of integers. Tima considers a sequence *nice* if the sum of any N consecutive numbers of the sequence is negative and Kanat considers a sequence *nice* if the sum of any M consecutive numbers of the sequence is positive. If the sequence does not have N and/or M consecutive numbers, it is considered to be *nice* for Tima and/or Kanat respectively.

Find the sequence of **maximum** possible length that will be *nice* for both of them.

Input

The first line contains one integer $T(1 \le T \le 10)$ — the number of tests.

In the next T lines there are two integers N and M, separated by space.

Output

For each test output 2 lines: in the first line output one integer K — maximum length of the sequence, which is *nice* for both Tima and Kanat. In the second line output K numbers separated by space — the sequence itself. The numbers should not exceed 10^9 by absolute value and should be non-zero. It is guaranteed that it is possible to find a sequence of maximum length that satisfies above condition. When $K = 0$ second line should be empty.

Scoring

This task includes seven subtasks:

1. $1 \le N, M \le 100$, and $max(N, M)$ is divisible by $min(N, M)$. Score 6 points.
2. $1 \le N, M \le 10^4, min(N, M) = 2$. Score 9 points.
3. $1 \le N, M \le 10$. Score 14 points.
4. $1 \le N, M \le 2 \cdot 10^5, |N - M| \le 2$. Score 15 points.
5. $1 \le N, M \le 2000$. Score 14 points.
6. $1 \le N, M \le 5 \cdot 10^4$. Score 18 points.
7. $1 \le N, M \le 2 \cdot 10^5$. Score 24 points.

Example

standard input	standard output
3 3 1 2 3 1 1	2 1 2 3 3 -4 2 0