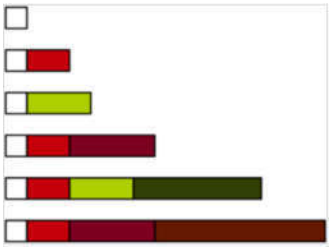
Problem H
Highly Abundant Number

Time Limit: 3 seconds
Memory Limit: 512 Megabytes



Problem description

In mathematics, a highly abundant number is a natural number with the property that the sum of its divisors (including itself) is greater than the sum of the divisors of any smaller natural number.

Formally, a natural number n is called highly abundant if and only if for all natural numbers m < n,

$$\sigma(n) > \sigma(m)$$

where σ denotes the sum-of-divisors function.

The first few highly abundant numbers are 1, 2, 3, 4, 6, 8, 10, 12, 16, 18, 20, 24, 30, 36, 42, 48, 60.

For instance, 5 is not highly abundant number because σ(5) = 5+1 = 6 is smaller than

σ(4) = 4 + 2 + 1 = 7, while 8 is highly abundant because σ(8) = 8 + 4 + 2 + 1 = 15 is larger than all previous values of σ.

Users are required to enter two non-negative integers m n using standard input stream (stdin). And the program displays the list of highly abundant number in range m...n.

Input

Two non-negative integers m, n

Output

The list of highly abundant number in range m...n.

Example:

Input	Output
1 50	1, 2, 3, 4, 6, 8, 10, 12, 16, 18, 20, 24, 30, 36, 42, 48

Input	Output
5 30	6, 8, 10, 12, 16, 18, 20, 24, 30