Problem I. Counting Good Arrays

Input file: `standard input`
Output file: `standard output`

We consider an array consisting of positive integers $\{a_1, a_2, \ldots, a_n\}$ of length n is **good** if and only if for each $1 \leq i < n$, a_{i+1} is divisible by a_i. Please note that we consider all the arrays with length 1 are good.

Given two integers n and m, please count the number of good arrays whose length is no greater than n and whose largest element is no greater than m. Since the answer may be large, you just need to output the answer modulo $10^9 + 7$.

Input

The first line of the input contains a single integer T ($1 \leq T \leq 10^3$), denoting the number of test cases.

Each of the next T lines contains two integers n, m ($1 \leq n, m \leq 10^9$), denoting a test case.

It's guaranteed that the number of test cases satisfying $\max(n, m) > 10^3$ will not exceed 50, the number of test cases satisfying $\max(n, m) > 10^6$ will not exceed 10, and the number of test cases satisfying $\max(n, m) > 10^8$ will not exceed 1.

Output

For each test case, output the answer modulo $10^9 + 7$ in a single line.

Example

standard input	standard output
5 2 4 3 5 10 12 24 17 114514 1919810	12 31 3915 190204 13530870

Note

All the good arrays with $n = 2, m = 4$ are:

- $\{1\}, \{2\}, \{3\}, \{4\}$
- $\{1, 1\}, \{1, 2\}, \{1, 3\}, \{1, 4\}$
- $\{2, 2\}, \{2, 4\}$
- $\{3, 3\}$
- $\{4, 4\}$