UVa Online Judge

13240 Looking at Divisors

Let $d(n)$ be the sum of all divisors of n. For example $d(6) = 1+2+3+6 = 12$. Given integers n and k, compute the sum of all integers m for $1 \leq m < n$, such that $d(m)$ is a multiple of k, i.e. $d(m) = l * k$, where l is a positive integer.

Input

A number of of inputs ($\leq$ 100), each start with the number of value of integers n, k ($1 \leq n, k \leq$ 10000000).

Output

Output the answer *modulo* 1000000007.

Sample Input

```
10 5
20 5
```

Sample Output

```
8
27
```