

### 7. Mathematical Practice

Timelimit: 1000MS Memorylimit: 64M

#### Problem Description:

Kamishirasawa Keine always says, "If you don't know what to do, why not give mathematical practice a try."

However, Cirno is way too much talented to work on simple problems. Therefore, you are now tasked to crack one.

We consider one operation on a set  $S$  as selecting  $m$  subsets of  $S$  in order (You can select the same subset multiple times and the selected subset can be empty).

Now you need to figure out how many possible operations that the  $m$  selected subsets are pairwise disjoint.

As the answer may get very large, you need to print the answer after modulo 998244353.

#### Input requirements:

The input contains one line with two integers  $n$  and  $m$  ( $1 \leq n, m \leq 10^9$ ), where  $n$  is the size of set  $S$  and  $m$  is the number of subsets to be selected in one operation.

#### Output requirements:

Print one integer, the number of possible operations above after modulo 998244353.

#### Sample input1:

3 2

#### Sample output1:

27

#### Sample input2:

1000 25

#### Sample output2:

605425003