Quick Fibb

Lab 7
Computer Programming
Due date: 23 October, 2019

Problem Statement: Find the N^{th} Fibonacci number modulo M.

Input
First line of input has T, number test cases. Each test case has space separated integers, N and M
Output
For each test case, output single integer denoting N^{th} Fibonacci number modulo M.

Constraints
$1 \leq T \leq 10^5$
$0 \leq N \leq 10^{18}$
$1 \leq M \leq 10^9 + 7$

Time Limit: 2 sec
Memory Limit: 256 MB

Sample Test Case

Input	Output
3 1 1 100 100 1000000000000000000 2	0 75 1