Recursion ውስጤ ነው

Time Limit 1 second

Problem

For given integers ***A***, B and N you have to find $((A^B) \% N)$ - which is nothing but (A power B) modulus N. simple isn't it.

Input

- First line of input contains $T(1 \leq T \leq 10)$ denoting the number of test cases. The description of test cases follows.
- The first line and only line of each test case contains three space-separated integers A, B and N $(1 \leq A, B, N \leq 10^{12})$.

Output

For each test case, print a single line containing one integer - $((A^B) \% N)$

Sample Input 1	Sample Output 1
2 10 6 9 9 5 3	1 0

Note

Be careful while using the recursion as the time limit is only 1 sec!