Problems

Implement pow(A, B) % C.

In other words, given A, B and C, find $(A^B)\%C$.

Input:

The first line of input consists number of the test cases.

 The following T lines consist of 3 numbers each separated by a space and in the following order:

A B C

'A' being the base number, 'B' the exponent (power to the base number) and 'C' the modular.

Output:

In each separate line print the modular exponent of the given numbers in the test case.

Constraints:

$1 \le T \le 70$

$1 \le A \le 10\text{\textasciicircum}5$

$1 \le B \le 10\text{\textasciicircum}5$

$1 \le C \le 10\text{\textasciicircum}5$

Example:

Input:

3
3 2 4
10 9 6
450 768 517

Output:

1
4
34

** For More Input/Output Examples Use 'Expected Output' option **

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