**Number Sequence**

**Time Limit: 2000/1000 MS (Java/Others)    Memory Limit: 65536/32768 K (Java/Others)  
Total Submission(s): 115393    Accepted Submission(s): 28044**

**Problem Description**

A number sequence is defined as follows:  
  
f(1) = 1, f(2) = 1, f(n) = (A \* f(n - 1) + B \* f(n - 2)) mod 7.  
  
Given A, B, and n, you are to calculate the value of f(n).

**Input**

The input consists of multiple test cases. Each test case contains 3 integers A, B and n on a single line (1 <= A, B <= 1000, 1 <= n <= 100,000,000). Three zeros signal the end of input and this test case is not to be processed.

**Output**

For each test case, print the value of f(n) on a single line.

**Sample Input**

1 1 3

1 2 10

0 0 0

**Sample Output**

2

5

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**Source**

[ZJCPC2004](http://acm.hdu.edu.cn/search.php?field=problem&key=ZJCPC2004&source=1&searchmode=source)

**Recommend**

JGShining   |   We have carefully selected several similar problems for you:  [1170](http://acm.hdu.edu.cn/showproblem.php?pid=1170) [1425](http://acm.hdu.edu.cn/showproblem.php?pid=1425) [1205](http://acm.hdu.edu.cn/showproblem.php?pid=1205) [1095](http://acm.hdu.edu.cn/showproblem.php?pid=1095) [1011](http://acm.hdu.edu.cn/showproblem.php?pid=1011)