

B

Just want the result

```
#include<stdio.h>
int foo(int a, int b){while(a>=b)a-=b;;return a;}
int main(){
    int a , k , n , result;
    while( scanf("%d%d%d" , &a , &k , &n)!=EOF ){
        a = foo(a,n) , result = 1 , foo(a,k);
        while(k-->0) result*=a,result=(n&(n-1))?(foo(result,n)):((result)&(n-1));
        printf("%d\n" , result);
    }
    return 0;
}
```

Input

Each line of input consists of three numbers, a, k, n. They are corresponding to variable names inside the code above.

The constraint: $0 \leq a < 65536$, $0 \leq k \leq 2147483647$, $0 \leq n < 65536$

The input file terminates with EOF.

Output

For each test case, output what the above code outputs.

Sample Input

Output for Sample Input

```
1 2 3
66 2147483647 64
```

```
1
0
```

Do not submit the above code directly.