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A Million Dollar Problem 1



by nurshuvo51

Problem

Submissions

Discussions

- Hey Guys. This is Azax.
- Welcome to "Who wants to be a Millionaire". I am your host.
- Today I will give you a problem. If you can solve it trust me you worth a million dollar.
- While going to have a chicken chap I found a piece of paper with the following sub-routine. I found it very interesting.

```
int Function(int NUM){
int cnt = 0;
for(int i=1; i<=NUM; i++){
if(GCD(i, NUM)==1) cnt++;
}
return cnt;
}</pre>
```

Now the problem is I will give the answer of Function ().

you two integers M and N where M will always be a prime number. You need to calculate As the answer could be very big you need to find the answer modulo 1000,000,007.

Input Format

Input starts with an integer T which denotes the number of test cases.

The next T lines contain two integers M and N where M will always be a prime number.

Constraints

```
1 <= T <= 10000
```

1 <= N <= 10^9

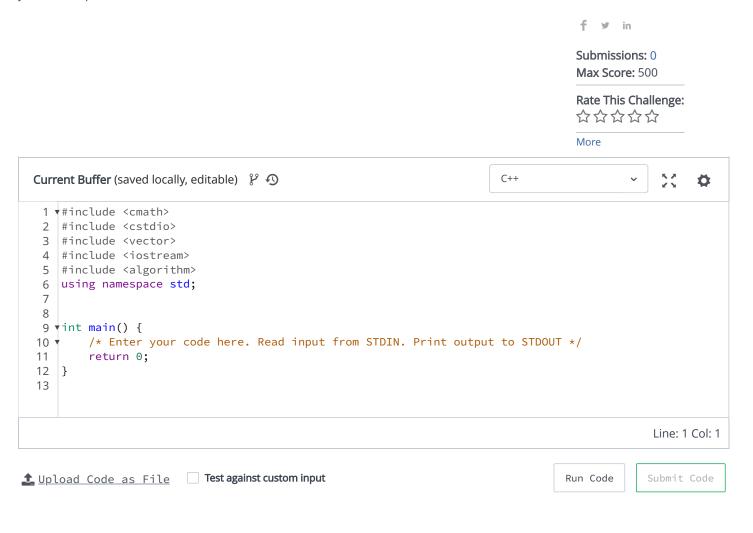
1 <= M <= 10^6 and will always be a prime number.

Output Format

For each of the test cases

result of Function ()%

you need to print the result in the format "Case X: R" where X is the case number and R is the 1000000007.



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