Modular Multiplicative Inverse

Easy Accuracy: **43.0%** Submissions: **60K+** Points: **2**

Given two integers **'a'** and **'m'**. The task is to find the smallest modular multiplicative inverse of **'a'** under modulo **'m'**.

Example 1:

Input:
a = 3
m = 11
Output: 4
Explanation: Since (4*3) mod 11 = 1, 4 is modulo inverse of 3. One might think, 15 also as a valid output as "(15*3) mod 11" is also 1, but 15 is not in ring {0, 1, 2, ... 10}, so not valid.

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Python3 Start Timer

```
# } Driver Code Ends
#User function Template for python3

class Solution:
    ##Complete this function
    def modInverse(self,a,m):
        ##Your code here
        for i in range(1,m):
            if(a*i)%m==1:
                return i
        return -1

# } Driver Code Ends
```

Custom Input Compile & Run Submit