

## 278. First Bad Version

Easy 2458 896 Add to List Share

You are a product manager and currently leading a team to develop a new product. Unfortunately, the latest version of your product fails the quality check. Since each version is developed based on the previous version, all the versions after a bad version are also bad.

Suppose you have `n` versions `[1, 2, ..., n]` and you want to find out the first bad one, which causes all the following ones to be bad.

You are given an API `bool isBadVersion(version)` which returns whether `version` is bad. Implement a function to find the first bad version. You should minimize the number of calls to the API.

### Example 1:

**Input:** `n = 5, bad = 4`

**Output:** `4`

**Explanation:**

call `isBadVersion(3) -> false`  
call `isBadVersion(5) -> true`  
call `isBadVersion(4) -> true`  
Then 4 is the first bad version.

### Example 2:

**Input:** `n = 1, bad = 1`

**Output:** `1`

```
1 # The isBadVersion API is already defined for you.
2 # @param version, an integer
3 # @return an integer
4 # def isBadVersion(version):
5
6 class Solution(object):
7     def firstBadVersion(self, n):
8         """
9         :type n: int
10        :rtype: int
11        """
12        r = n-1
13        l = 0
14        while(l<=r):
15            mid = l + (r-l)//2
16            if isBadVersion(mid)==False:
17                l = mid+1
18            else:
19                r = mid-1
20        return l
```

Testcase Run Code Result Debugger

Accepted Runtime: 34 ms

Your input

5  
5

Output

5

Diff

Expected

5