

Problem 372: Super Pow

Problem Information

Difficulty: Medium

Acceptance Rate: 36.05%

Paid Only: No

Tags: Math, Divide and Conquer

Problem Description

Your task is to calculate $a^b \bmod 1337$ where a is a positive integer and b is an extremely large positive integer given in the form of an array.

Example 1:

Input: $a = 2$, $b = [3]$ **Output:** 8

Example 2:

Input: $a = 2$, $b = [1,0]$ **Output:** 1024

Example 3:

Input: $a = 1$, $b = [4,3,3,8,5,2]$ **Output:** 1

Constraints:

* $1 \leq a \leq 231 - 1$ * $1 \leq b.length \leq 2000$ * $0 \leq b[i] \leq 9$ * b does not contain leading zeros.

Code Snippets

C++:

```
class Solution {  
public:  
    int superPow(int a, vector<int>& b) {  
  
    }  
};
```

Java:

```
class Solution {  
public int superPow(int a, int[] b) {  
  
}  
}
```

Python3:

```
class Solution:  
    def superPow(self, a: int, b: List[int]) -> int:
```