GE23131-Programming Using C-2024

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Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
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Question **1**

Correct

Marked out of 3.00

Flag question

Alice and Bob are playing a game called "Stone Game". Stone game is a two-player game. Le
stones. In each turn, a player can remove either one stone or four stones. The player who pic
follow the "Ladies First" norm. Hence Alice is always the one to make the first move. Your tas
can win, if both play the game optimally.

Input Format

First line starts with T, which is the number of test cases. Each test case will contain N numbe

Output Format

Print "Yes" in the case Alice wins, else print "No".

Constraints

1<=T<=1000

1<=N<=10000

Sample Input and Output

Input

3
1
6
7

Output

Yes
Yes
No

Answer: (penalty regime: 0 %)

	Input	Expected	Got	
	3 1 6 7	Yes Yes No	Yes Yes No	

Passed all tests!

Question **2**

Correct

Marked out of 5.00

Flag question

You are designing a poster which prints out numbers with a unique style applied to each of th
the number of closed paths or holes present in a given number.

The number of holes that each of the digits from 0 to 9 have are equal to the number of clos
values are:

1, 2, 3, 5, and 7 = 0 holes.

0, 4, 6, and 9 = 1 hole.

8 = 2 holes.

Given a number, you must determine the sum of the number of holes for all of its digits. For e
has 3 holes.

Complete the program, it must must return an integer denoting the total number of holes in

Constraints

$1 \leq num \leq 109$

Input Format For Custom Testing

There is one line of text containing a single integer num, the value to process.

Sample Input

630

Sample Output

2

Explanation

Add the holes count for each digit, 6, 3 and 0. Return 1 + 0 + 1 = 2.

Sample Input

1288

Sample Output

4

Explanation

Add the holes count for each digit, 1, 2, 8, 8. Return 0 + 0 + 2 + 2 = 4.

Answer: (penalty regime: 0 %)

	Input	Expected	Got	
	630	2	2	
	1288	4	4	

Passed all tests!

Question **3**

Correct

Marked out of 7.00

Flag question

The problem solvers have found a new Island for coding and named it as Philaland. These sm
to make a purchase of items at the Island easier by distributing various coins with different va
with a solution that if we make coins category starting from $1 till the maximum price of the
we can purchase any item easily. He added the following example to prove his point.

Let's suppose the maximum price of an item is 5$ then we can make coins of {$1, $2, $3, $4, $
ranging from $1 till $5.

Now Manisha, being a keen observer suggested that we could actually minimize the number
following distribution {$1, $2, $3}. According to him any item can be purchased one time rang
was impressed with both of them. Your task is to help Manisha come up with a minimum nun
any arbitrary max price in Philaland.

Input Format

Contains an integer N denoting the maximum price of the item present on Philaland.

Output Format

Print a single line denoting the minimum number of denominations of coins required.

Constraints

1<=N<=5000

Refer the sample output for formatting

Sample Input 1:

10

Sample Output 1:

4

Sample Input 2:

5

Sample Output 2:

3

Explanation:

For test case 1, N=10.

According to Manish {$1, $2, $3,... $10} must be distributed.

But as per Manisha only {$1, $2, $3, $4} coins are enough to purchase any item ranging from
is 4. Likewise denominations could also be {$1, $2, $3, $5}. Hence answer is still 4.

For test case 2, N=5.

According to Manish {$1, $2, $3, $4, $5} must be distributed.

But as per Manisha only {$1, $2, $3} coins are enough to purchase any item ranging from $1
Likewise, denominations could also be {$1, $2, $4}. Hence answer is still 3.

Answer: (penalty regime: 0 %)

	Input	Expected	Got	
	10	4	4	

	20	5	5	
	500	9	9	
	1000	10	10	

Passed all tests!

Save the state of the flags