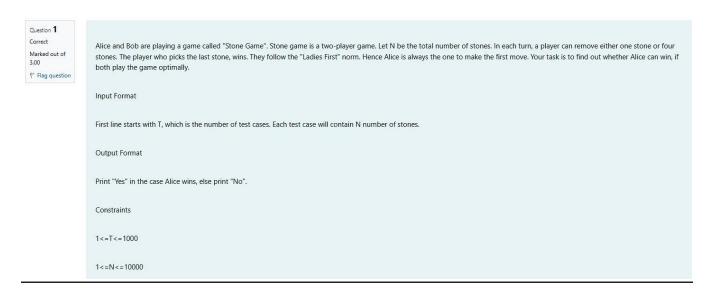
Week-04-Decision Making and Looping - while, do...while and for

Week-04-01-Practice Session-Coding



Source code

Answer: (penalty regime: 0 %)

```
#include<stdio.h>
 2
 3 +
    int main(){
 4
        int t,n,x;
 5
        scanf("%d",&t);
 6
 7
        while(t--){
 8 .
            scanf("%d",&n);
9
10
           x=n/4;
11
            if((n\%2==0 \&\& x\%2!=0)||n==1||n==3){}
12 +
                printf("Yes\n");
13
14
15 +
            else{
                printf("No\n");
16
17
18
19
        return 0;
20
```

Result

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

Passed all tests! ✓

Question 2 You are designing a poster which prints out numbers with a unique style applied to each of them. The styling is based on the number of closed paths or holes present in a given number. Marked out of 5.00 The number of holes that each of the digits from 0 to 9 have are equal to the number of closed paths in the digit. Their values are: ♥ Flag question 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 example, the number 819 has 3 holes. $Complete \ the \ program, \ it \ must \ must \ return \ an \ integer \ denoting \ the \ total \ number \ of \ holes \ in \ num.$ Constraints 1 ≤ num ≤ 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

Source code

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
 3 v int main(){
 4
        int n,sum=0;
 5
        scanf("%d",&n);
 6
 7 +
        while(n!=0){
            if(n%10==1 || n%10==2 || n%10==3 || n%10==5 || n%10==7){
 8 .
 9
                sum+=0;
10
            else if(n%10==0 || n%10==4 || n%10==6 || n%10==9){
11 +
12
                sum+=1;
13
            else if(n%10==8){
14 *
15
                sum+=2;
16
17 +
            else{
                continue;
18
19
            n/=10;
20
21
        printf("%d",sum);
22
        return 0;
23
24 }
```

Result

	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 smart people were given a task to make a purchase of items at the Island easier by distributing various coins with different values. Manish has come up with a solution that if we make coins category starting from \$1 till the maximum price of the item present on Island, then 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, \$5}to purchase any item ranging from \$1 till \$5.

Now Manisha, being a keen observer suggested that we could actually minimize the number of coins required and gave following distribution (\$1, \$2, \$3). According to him any item can be purchased one time ranging from \$1 to \$5. Everyone was impressed with both of them. Your task is to help Manisha come up with a minimum number of denominations for 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<=T<=100 1<=N<=5000

Source code

```
Answer: (penalty regime: 0 %)
       #include<stdio.h>
   1
   2
   3 v int main(){
   4
           int n,sum=0,coin=1,count=0;
    5
           scanf("%d",&n);
    6
    7
           do{
   8 +
   9
                sum+=coin;
  10
                coin*=2;
  11
                count++;
  12
  13
           while(sum<n);
  14
           printf("%d",count);
  15
  16
           return 0;
  17
```

Result

	Input	Expected	Got	
~	10	4	4	~
~	5	3	3	~
~	20	5	5	~
~	500	9	9	~
~	1000	10	10	~

Passed all tests! 🗸