

<b>Status</b>	Finished
<b>Started</b>	Saturday, 1 November 2025, 6:35 PM
<b>Completed</b>	Saturday, 1 November 2025, 7:27 PM
<b>Duration</b>	52 mins 57 secs

**Question 1**

Correct

You are designing a poster which prints out numbers with a unique style applied to each of them. The string has 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 closed paths in

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 100 has 0 holes.

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

**Constraints**

$1 \leq \text{num} \leq 109$

**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 Case 1****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 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int num,sum=0,rem;
5     scanf("%d",&num);
6     while(num>0) {
7         rem=num%10;
8         if(rem==0 || rem==4 || rem==6 || rem==9)
9             sum=sum+1;
10        else if(rem==8)
11            sum=sum+2;
12        num=num/10;
13    }
14    printf("%d",sum);
15    return 0;
16 }
```

	Input	Expected	Got	
✓	630	2	2	✓
✓	1288	4	4	✓

Passed all tests! ✓

**Question 2**

Correct

The problem solvers have found a new Island for coding and named it as Philaland. These smart people have made the Island easier by distributing various coins with different values. Manish has come up with a solution to calculate the minimum number of coins required to purchase any item till the maximum price of the item present on Island, then we can purchase any item easily. He added the following note:

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.

Now Manisha, being a keen observer suggested that we could actually minimize the number of coins required. She suggested that we can use the coins of value {1, 2, 3, 4, 5}. According to him any item can be purchased one time ranging from \$1 to \$5. Everyone was impressed by his suggestion. Manisha came 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**

$1 \leq T \leq 100$

$1 \leq N \leq 5000$

**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 \$1 to \$10. Hence answer 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 to \$5. Hence answer could also be {\$1, \$2, \$4}. Hence answer is still 3.

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int total,count=0;
5     scanf("%d",&total);
6     while(total!=0)
7     {
8         count++;
9         total=total/2;
10    }
11    printf("%d",count);
12    return 0;
13 }
```

	Input	Expected	Got	
✓	10	4	4	✓
✓	5	3	3	✓

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	20	5	5	✓
✓	500	9	9	✓
✓	1000	10	10	✓

Passed all tests! ✓

**Question 3**

Correct

**Problem Statement:**

Integers are continuously entered by the user, one per line. The program must keep accepting integers until the user enters a negative number. The program must print each entered non-negative integer immediately as it is read.

**Input Format:**

Each line will contain one integer entered by the user.

Input terminates when a negative number is entered.

**Boundary Conditions:**

The number of integers entered can vary.

Each integer can range from -99999999 to 99999999.

**Sample Input:**

```
5  
10  
8  
0  
-3
```

**Sample Output:**

```
You entered: 5  
You entered: 10  
You entered: 8  
You entered: 0
```

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>  
2 int main()  
3 {  
4     int k;  
5     while(1){  
6         scanf("%d",&k);  
7         if(k<0)  
8             break;  
9         else  
10            printf("You entered: %d\n",k);  
11    }  
12 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	5 10 8 0 -3	You entered: 5 You entered: 10 You entered: 8 You entered: 0 You entered: -3	You entered: 5 You entered: 10 You entered: 8 You entered: 0 You entered: -3	✓
✓	3 7 12 9 -1	You entered: 3 You entered: 7 You entered: 12 You entered: 9 You entered: -1	You entered: 3 You entered: 7 You entered: 12 You entered: 9 You entered: -1	✓

Passed all tests! ✓