

<b>Status</b>	Finished
<b>Started</b>	Saturday, 1 November 2025, 10:10 AM
<b>Completed</b>	Saturday, 1 November 2025, 10:50 AM
<b>Duration</b>	39 mins 58 secs

Question **1**

Correct

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 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 the digit. Their 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 example, the number 819 has 3 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     {
8         rem=num%10;
9         if(rem==0 || rem==4 || rem==6 || rem==9)
10            sum=sum+1;
11        else if(rem==8)
12            sum=sum+2;
13        num=num/10;
14    }
15    printf("%d",sum);
16    return 0;
17 }
18 }
```

	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 were given a task to make a p distributing various coins with different values. Manish has come up with a solution that if we make coins category starting from \$1 til 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

Now Manisha, being a keen observer suggested that we could actually minimize the number of coins required and gave following dis 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 , 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 minimum is 4. Likewise \$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 minimum is 3. Likewise, den 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	✓
✓	20	5	5	✓

	Input	Expected	Got	
✓	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 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 |
5 |     int number;
6 |     scanf("%d",&number);
7 |     while(number>=0){
8 |         printf("You entered: %d\n",number);
9 |         scanf("%d",&number);
10 |     }
11 |     return 0;
12 | }
```

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

Passed all tests! ✓