**Question 1: Five\_to\_Eight**

In the Given Number n, Consider the digits between the consecutive five and eight as a single number and

the rest as individual digit and find their sum

For Example:

5887 => 58 + 8 + 7

5281534 => 528 + 1 + 5 + 3 + 4

5185576 => 518 + 5 + 5 + 7 + 6

850081 => 8 + 5008 + 1

Input Format

A Single integer n

Output Format

A single integer which is a sum

Sample Input 1

123456789

Sample Output 1

5697

Explanation 1

1 + 2 + 3 + 4 + 5678 + 9 = 5697

Sample Input 2

5887

Sample Output 2

73

Explanation 2

58 + 8 + 7 = 73

**Answer**

a = input()

t = 0

s = 0

f1,f2 = 0,0

for ind,i in enumerate(a):

if(i=='5' and f1==0 and f2==0):

f1 = 1

f2 = 1

s = ind

elif(i=='8' and f1==1):

t += int(a[s:ind+1])

f1 = 0

f2 = 0

elif(f1==0 and f2==0):

t += int(i)

if(f1==1 and f2==1):

t += sum(map(int,list(a[s:])))

print(t)

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**Question 2: Candy distribution**

A jail has a number of prisoners and a number of treats to pass out to them.

Their jailer decides the fairest way to divide the treats is to seat the prisoners around a circular table in sequentially numbered chairs.

A chair number will be drawn from a hat. Beginning with the prisoner in that chair,

one candy will be handed to each prisoner sequentially around the table until all have been distributed.

The jailer is playing a little joke, though. The last piece of candy looks like all the others, but it tastes awful. Determine the chair number occupied by the prisoner who will receive that candy.

For example, there are 4 prisoners and 6 pieces of candy. The prisoners arrange themselves in seats numbered 1 to 4 .

Let's suppose two is drawn from the hat. Prisoners receive candy at positions 2,3,4,1,2,3 .

The prisoner to be warned sits in chair number 3.

Function Description

Complete the saveThePrisoner function in the editor below.

It should return an integer representing the chair number of the prisoner to warn.

saveThePrisoner has the following parameter(s):

n: an integer, the number of prisoners

m: an integer, the number of sweets

s: an integer, the chair number to begin passing out sweets from

Input Format

The first line contains an integer,t , denoting the number of test cases.

The next t lines each contain 3 space-separated integers:

- n : the number of prisoners

- m: the number of sweets

- s: the chair number to start passing out treats at.

Output Format

For each test case, print the chair number of the prisoner who receives the awful treat on a new line.

Output Format

For each test case, print the chair number of the prisoner who receives the awful treat on a new line.

Sample Input 0

2

5 2 1

5 2 2

Sample Output 0

2

3

Explanation 0

In first query, there are n=5 prisoners and m=2 sweets. Distribution starts at seat number s=1 . Prisoners in seats numbered 1 and 2 get sweets. Warn prisoner 2 .

In the second query, distribution starts at seat 2 so prisoners in seats 2 and 3 get sweets. Warn prisoner 3.

Sample Input 1

2

7 19 2

3 7 3

Sample Output 1

6

3

Explanation 1

In the first test case, there are n=7 prisoners, m=19 sweets and they are passed out starting at chair s=2 . The candies go all around twice and there are more candies passed to each prisoner from seat 2 to seat 6 .

In the second test case, there are n=3 prisoners, m=7 candies and they are passed out starting at seat s=3 . They go around twice, and there is one more to pass out to the prisoner at seat 3.

**Answer**

for \_ in range(int(input())):

p,m,s = map(int, input().split())

a=0

a=(m+s-1)%p

if a==0:s

print(p)

else:

print(a)

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**Question 3: Philaland coin**

Problem Statement

The problem solvers have found a new Island for coding and named it as Philaland.These smart people were given a task to make purchase of items at the Island easier by distributing various coins with different value.Manish has come up with a solution that if we make coins category starting from $1 till the maximum price of item present on Island, then we can purchase any item easily. He added 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 minimum number of denominations for any arbitrary max price in Philaland.

Input Format

First line contains an integer T denoting the number of test cases.

Next T lines contains an integer N denoting the maximum price of the item present Philaland.

Output Format

For each test case print a single line denoting the minimum number of denominations of coins required.

Constraints

1<=T<=100

1<=N<=5000

Refer the Sample Output Formatting

Sample Input:

2

10

5

Sample Output:

4

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 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 to $5. Hence minimum is 3. Likewise denominations could also be {$1, $2, $4}. Hence answer is still 3.

**Answer**

for \_ in range(int(input())):

n = int(input())

print(len(bin(n))-2)

Or

a=int(input())

b=[]

for i in range(a):

b.append(int(input()))

for i in range(a):

print(b[i].bit\_length())