



# Day 10: Binary Numbers

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## Objective

Today, we're working with binary numbers. Check out the [Tutorial](#) tab for learning materials and an instructional video!

## Task

Given a base-**10** integer,  $n$ , convert it to binary (base-**2**). Then find and print the base-**10** integer denoting the maximum number of consecutive **1**'s in  $n$ 's binary representation.

## Input Format

A single integer,  $n$ .

## Constraints

- $1 \leq n \leq 10^6$

## Output Format

Print a single base-**10** integer denoting the maximum number of consecutive **1**'s in the binary representation of  $n$ .

## Sample Input 1

```
5
```

## Sample Output 1

```
1
```

## Sample Input 2

```
13
```

## Sample Output 2

```
2
```

## Explanation

*Sample Case 1:*

The binary representation of **5** is **101**, so the maximum number of consecutive **1**'s is **1**.

*Sample Case 2:*

The binary representation of **13** is **1101**, so the maximum number of consecutive **1**'s is **2**.



Submissions: 42604

Max Score: 30

Difficulty: Easy

Rate This Challenge:

★★★★★ Thanks!

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Current Buffer (saved locally, editable) C#

```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 class Solution {
6
7     static void Main(String[] args) {
8         int n = Convert.ToInt32(Console.ReadLine());
9
10        int consecutivos = 0;
11
12        int max_consecutivos = 0;
13        while (n > 0)
14        {
15            consecutivos = 0;
16            while (n>0 && n % 2 == 1)
17            {
18                consecutivos++;
19                n /= 2;
20            }
21            max_consecutivos = Math.Max(max_consecutivos, consecutivos);
22            n /= 2;
23        }
24
25        Console.WriteLine(max_consecutivos);
26
27    }
28 }
29
30
```

Line: 18 Col: 22

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code

### Congrats, you solved this challenge!

✓ Test Case #0

✓ Test Case #3

✓ Test Case #6

✓ Test Case #1

✓ Test Case #4

✓ Test Case #7

✓ Test Case #2

✓ Test Case #5

✓ Test Case #8

Next Challenge

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