Day 10: Binary Numbers

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.