BINUS UNIVERSITY
SCHOOL OF COMPUTER SCIENCE

Maximum from Generated Array

Santoso is a Student that likes to solve some competitive programming problems. Every day he practice solving the problems in the internet. One day he found out a problem that really hard for him to solve. The problem is to find a maximum number from an Array of Integer that has a certain pattern. In the problem, we only need to input the length of array then it will automatically generate the array and find the maximum value from the array.

You As a professional programmer as well as his best Friend, find out he is struggling to solve the problem and willing to help him.

Format Input

The input of this problem only contain one integer N as the length of how much number the array have.

Format Output

The output of this problem consists of one integer of the Maximum Value number of the array.

Constraints

- $1 \leq N \leq 100$

- $0 \leq i \leq N$

Array constraint :

- $array$ length $= N + 1$

- $array[0] = 0$

- $array[1] = 1$

- $array[2*i] = array[i]$ (where $2 \leq 2*i \leq N$)

- $array[2*i+1] = array[i] + array[i+1]$ (where $2 \leq 2*i+1 \leq N$)

Sample Input 1 (standard input)

```
3
```

Sample Output 1 (standard output)

```
2
```

Sample Input 2 (standard input)

```
4
```

Sample Output 2 (standard output)

```
2
```

Sample Input 3 (standard input)

```
5
```

Sample Output 3 (standard output)

```
3
```

Maximum from Generated Array

Santoso adalah seorang mahasiswa yang suka mengerjakan soal-soal competitive programming. Setiap hari dia mencari soal-soal di internet dan mengerjakannya. Suatu hari dia menemukan suatu soal yang sangat sulit untuk diselesaikan olehnya. Soal ini adalah tentang mencari nilai maksimum dari suatu array integer dengan pola tertentu. Dalam Soal ini kita hanya menginput ukuran dari array tersebut kemudian array akan otomatis di generate dan akan ada hasil akhir berupa nilai maksimum dari array itu.

Kamu sebagai seorang programmer profesional dan teman baiknya, melihat dia kesusahan dan bersedia membantu dia.

Format Input

Input soal ini hanya memiliki bilangan N yang menunjukan berapa banyak angka yang terdapat dalam satu array.

Format Output

Output soal ini terdiri dari satu bilangan hasil nilai maksimum dari array yang dibuat.

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