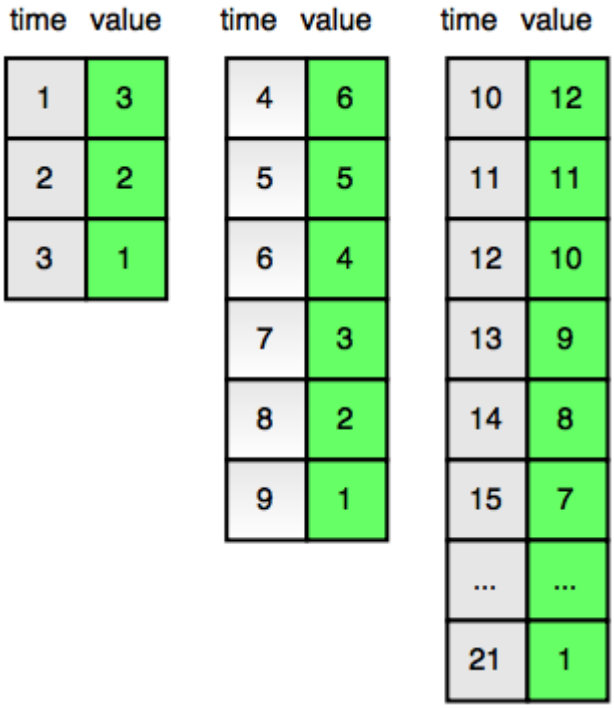
Problem: Strange Counter

Bob has a *strange counter*. At the first second, , it displays the number . At each subsequent second, the number displayed by the counter decrements by .
The counter counts down in cycles. In the second after the counter counts down to , the number becomes the initial number for that countdown cycle and then continues counting down from the new initial number in a new cycle. The diagram below shows the counter values for each time in the first three cycles:



Given a time, , find and print the value displayed by the counter at time .

Input Format

A single integer denoting the value of .

Constraints

-

Subtask

- for of the maximum score.

Output Format

Print the value displayed by the strange counter at the given time .

Sample Input

```
4
```

Sample Output

```
6
```

Explanation

Time marks the beginning of the second cycle in which the counter displays a number that is double the initial number displayed at the beginning of the previous cycle (i.e.,). This is also shown in the diagram in the *Problem Statement* above.

Solution

```
int main()
    {
        long query, value, i=1;
        cin>>query;
        while(1)
            {  //value is the pattern b/w the last time
                of each cycle
                value=(pow(2,i)*3)-3;
                if( query > value)
                    {i++;}
                else{break;}
            }
        cout<<value-query+1<<endl;

        return 0;
    }
```

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