https://course.acciojob.com/idle?question=a28d5afa-4ca8-429f-ab00-0241cf48dd53

- MEDIUM
- Max Score: 40 Points
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Turn off the rightmost set bit

Given a integer n. Write a program that unsets the rightmost set bit of given integer.

For eg.

Input = 12 (01100)

output = 8(01000)

Input Format

Single line containing integer n

Output Format

Single line representing decimal value of integer after turning off rightmost set bit.

It can be assumed that answer always exist

Example 1

Input

```
7
```

Output

```
6
```

Explanation

7 is represented as 111 in binary form, turning of rightmost bit gives 110 which is 6 in decimal form.

Example 2

Input

```
12
```

Output

```
8
```

Explanation

12 is represented as 1100 in binary form, turning off rightmost bit gives 1000 which is 8 in decimal form.

Constraints

1 <= n <= 2^32 - 1

Topic Tags

- **Bit Manipulation**

My code

```
// n java
import java.io.*;
```

```
import java.util.*;

class Solution{
    public static int turnOffBit(int n){
        // Write your code here
            int ans=0;
            int pos=1;
            int f=0;
            while(n>0)
                    {
                         int r=n%2;
                           n/=2;
                           if(r==1 )
                           {
                                  if(f==0)
                                  {
                                         f=1;

                                  }
                                  else
                                         ans=ans+pos;

                           }
                           pos*=2;
                    }
            return ans;
    }
}

public class Main {
```

```
    public static void main(String args[]) {

        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        Solution obj = new Solution();
        System.out.println(obj.turnOffBit(n));
    }
}
```