



Problem

Result



## Min Xor Max

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You are given a number A.

You have to find 2 numbers B and C such that A xor B is minimum and A xor C is maximum.

Note : Xor is a logical operator that outputs true only when inputs differ.

### Input Format:

The only line of input contains an integer A denoting the number.

### Constraints:

 $1 \leq A \leq 1000000000$  $1 \leq B, C \leq A$ 

Time Limit: 1 second

### Output Format:

2 Space separated integers B and C as described above.

```
1 // Author:: Mohammad Faisal
2 // Email:: mohammad.faisal78612@gmail.com
3 #include<bits/stdc++.h>
4 using namespace std;
5 int main() {
6     ios_base::sync_with_stdio(false);
7     cin.tie(0);
8     cout.tie(0);
9
10
11     long long n;
12     cin >> n;
13     vector<pair<long long , long long> > res;
14     for(long long i=0;i<=n;i++)
15     {
16         long long x = n^i;
17         res.push_back(make_pair(x,i));
18     }
19     sort(res.rbegin(),res.rend());
20     cout<<n<<" "<<res[0].second;
21     return 0;
22     // Write your code here
23 }
```

ProblemResult

**Constraints:**

$1 \leq A \leq 1000000000$   
 $1 \leq B, C \leq A$   
Time Limit: 1 second

**Output Format:**

2 Space separated integers B and C as described above.

**Sample Test cases:**

Sample Input 1:

7

Sample Output 1:

7 0

```
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