

## CP With Shibam

### Day-50

#### C. Cypher

```
#include <bits/stdc++.h>

using namespace std;

int main() {

    int t, n, m;

    string s;

    for (cin >> t; t-- > 0;) {

        cin >> n;

        vector<int> v(n);

        for (int& x: v) cin >> x;

        for (int i = 0; i < n; ++i) {

            cin >> m >> s;

            for (int j = 0; j < m; ++j)

                v[i] = (v[i] + (s[j] == 'D' ? 1 : 9)) % 10;

        }

        for (int x: v) cout << x << ' ';

        cout << endl;

    }

}
```

#### A. And Then There Were K

```
#include<bits/stdc++.h>

using namespace std;

int main(){
```

```
int T;  
cin>>T;  
while(T--){  
    int n;  
    cin>>n;  
    cout<<(1<<(int)log2(n))-1<<endl;  
}  
return 0;  
}
```