

DescriptionHintsSubmissionsDiscussionsNotes

Subtraction Game

1 sec256000KB100

DifficultyTime LimitMemoryScore

80/80 XP30/30

Description

Vivek and Abhishek are playing a game of chips, taking turns alternatively. Initially, there are x chips on the table. On each turn, a player can pick up 2^m chips such that $m \geq 0$ and $x \geq 2^m$. A player loses the game if he has no chips to pick from the table.

Given that Vivek starts the game, Predict the winner of the game.

Input Format

The first line contains T – the number of test cases.

The next T lines contain an integer x , – the number of chips on the table.

Output Format

For each test case, Predict the winner of the chip game. Output "Vivek" if Vivek wins; else output "Abhishek", on a new line.

Constraints

$1 \leq T \leq 10^6$.

$0 \leq x \leq 2 \times 10^5$.

Sample Input 1

50212783100133

Copy

C++1400:00:0012 px

27282930313233343536373839404142434445464748495051525354555657

```
        return dp[x]=ans;
    }
    void solve(){
        cin>>x;

        int ans=rec(x);

        if(ans==0){
            cout<<"Abhishek"<<endl;
        }
        else{
            cout<<"Vivek"<<endl;
        }
        // for(int i=0;i<x;i++){
        //     cout<<dp[i]<<endl;
        // }
    }

    int main(){
        ios_base::sync_with_stdio(0);
        cin.tie(0);
        cout.tie(0);
        int t;
        cin>>t;
        memset(dp, -1, sizeof(dp));
        while(t--){
            solve();
        }
        return 0;
    }
```

Sample TestsManual Tests

Test Case 1

ACCEPTED

Input

ConsoleRun on Sample