#include <bits/stdc++.h>

using namespace std;

class Voter{

  static int countOfVoter;

  static int votes[7]; //spoilt ballot in 0

  int vote;

  public: Voter();

          Voter(int);

          static void appendVote(int);

          static void electionResult();

};

int Voter :: countOfVoter;

int Voter :: votes[7];

Voter :: Voter(){

  cout<<"Value of vote";

  cin>>vote;

  appendVote(vote);

}

Voter :: Voter(int x){

  vote = x;

  appendVote(x);

}

void Voter::electionResult(){

  cout<<"Declaration of election result\n";

  int maxi = 1;

  vector <int> equals(1);

  equals[0] = -1;

  int k = 0;

  for (int i = 1; i < 6; i++){

    cout<<"Candidate "<<i<<" got "<<votes[i]<<" votes\n";

    maxi = (votes[i]>votes[maxi])?i:maxi;

    if (equals[0]!= -1 && votes[maxi] > votes[equals[0]]){

      equals.resize(1);

      equals[0] = -1;

      k = 0;

    }

    if (votes[maxi] == votes[i] && maxi != i)

      equals[k] = (i);

  }

  cout<<"Invalid ballots:"<<votes[0]<<"\n";

  if (equals[0] == -1)

    cout<<"Candidate "<<maxi<<" wins the election with "<<votes[maxi]<<" votes\n";

  else  {

    cout<<"Tie between candidates "<<maxi<<" and ";

    int i;

    //

    for (i = 0; i <= k; i++)

      cout<<equals[i]<<" ";

    cout<<"\n";

  }

}

void Voter::appendVote(int x){

  countOfVoter++;

  if (x<1 || x>5)

    votes[0]++;

  else

    votes[x]++;

}

int main(){

  int n,y;

  cout<<"Enter number of voters:";

  cin>>n;

  cout<<"Enter votes : ";

  for (int i = 0; i<n;i++){

    cin>>y;

    Voter x(y);

  }

  Voter::electionResult();

  return 0;

}



