**Chess Tournament**

bool func(vector<int> positions,int n,int c,int dist)

{

int coord=positions[0];

int count=1;

for (int i=1;i<n;i++)

{

if ((positions[i]-coord) >= dist)

{

count++;

coord=positions[i];

}

if (count == c)

{

return true;

}

}

return false;

}

int chessTournament(vector<int> positions , int n , int c)

{

// Write your code here

sort(positions.begin(),positions.end());

int low=1;

int high=(positions[n-1]-positions[0]);

int ans;

while(low<=high)

{

int mid=(low+high)/2;

if(func(positions,n,c,mid))

{

ans=mid;

low=mid+1;

}

else

{

high=mid-1;

}

}

return ans;

}