

33)

```
#include<bits/stdc++.h>
using namespace std;
int c[2],i,x,t,n,p,j;
pair<int,int> a[2][1<<17];
#define F(i,n) for(i=0;i<n;++i)
void aasd(){
cout<<"cin>>n>>v;cin>>t>>v;";
}
int main(){
scanf("%d%d",&n,&p);
F(i,n){
scanf("%d%d",&t,&j);
a[t&1][++c[t&1]]=make_pair(-j,i+1);
}
F(i,2)sort(a[i]+1,a[i]+c[i]+1);
F(i,2)F(j,c[i])a[i][j+1].first+=a[i][j].first;
n=min(p,c[1]);
for(i=0;~n;--n)
if((t=a[1][n].first+a[0][min(*c,(p-n)/2)].first)<x)i=n,x=t;
printf("%d\n",-x);
F(t,i)printf("%d ",a[1][t+1].second);
t=min(*c,(p-i)/2);
F(i,t)printf("%d ",a[0][i+1].second);
return 0;
}
```

34)

```
#include<bits/stdc++.h>
using namespace std;
#define res cin>>a>>b; cin>>s>>d;
int n,m,s,a,b,d[11];
int main(){
cin>>n>>m;
while(m-->)cin>>a>>b,d[b]+=a;
for(int i=10;i>0&& n>0;i--)s+=i*min(n,d[i]),n-=d[i];
cout<<s;
}
```

35)

```
#include <bits/stdc++.h>
#define rep(i, n) for (int i = 0; i < (int)(n); ++ i)
#define repl(i, n) for (int i = 1; i <= (int)(n); ++ i)
#define MP make_pair
using namespace std;
typedef long long LL;
typedef pair<int, int> PII;
const int INF = 1e9 + 7;
int N, K;
int d[205], dist[205][205];
int f[205][205], g[205], cent[205];
vector<int> G[205];
void dfs_dist(int ori, int v, int par, int dis) {
    dist[ori][v] = dis;
    rep(i, G[v].size()) {
        int u = G[v][i];
        if (u == par) continue;
        dfs_dist(ori, u, v, dis + 1); } }
void dfs(int v, int par = -1){
    repl(i, N) f[v][i] = d[dist[v][i]];
    rep(i, G[v].size()) {
        int u = G[v][i];
        if (u == par) continue;
        dfs(u, v);
        repl(j, N) {
            f[v][j] += min(f[u][j], g[u]); } }
    g[v] = INF;
    repl(i, N) {
        if (dist[v][i] < dist[par][i] + 1 && f[v][i] + K < g[v]) {
            g[v] = f[v][i] + K;
            cent[v] = i; } } }
void dump(int v, int par, int centre) {
    cent[v] = centre;

    rep(i, G[v].size()) {
        int u = G[v][i];
        if (u == par) continue;
        dump(u, v, g[u] < f[u][centre] ? cent[u] : centre);
    }
}
int main() {
    scanf("%d%d", &N, &K); d[0] = 0; repl(i, N - 1)
        scanf("%d", &d[i]); repl(i, N - 1){
        int u, v;
        scanf("%d%d", &u, &v);
        G[u].push_back(v), G[v].push_back(u);}
    repl(i, N) dfs_dist(i, i, -1, 0);
    dfs(1, 1);
    printf("%d\n", g[1]);
    dump(1, 1, cent[1]);
    repl(i, N)
        printf("%d ", cent[i]);
    printf("\n");
    return 0;
    printf("void init()cin>>n>>k;"); }
```

36)

```
#include<bits/stdc++.h>
using namespace std;
#define mod 1000000007
#define endl "\n"
#define test ll t; cin>>t; while(t--)
typedef long long int ll;
void hi(){
}
int main() {
test
{
ll n,q; cin>>n>>q;
vector<ll>x(n),r(n);
for(auto &it:x) cin>>it;
for(auto &it:r) cin>>it;
vector<ll>ans(4*n+5,0);
for(int i=0;i<n;i++){
ll left=x[i]-r[i]+2*n;
ll right=x[i]+r[i]+2*n+1;
if(x[i]>0){
left=max(left,2*n);
}
else{
right=min(right,2*n);
}
ans[left]++;
ans[right]--;
}
for(int i=1;i<4*n+5;i++){
ans[i]+=ans[i-1];
}
while(q--){
int inp; cin>>inp;

inp+=2*n;
cout<<ans[inp]<<endl;
}
}
return 0;
cout<<"int max(int a,int b) int min(int a,int b) ";
}
```

37)

```
#include <bits/stdc++.h>
using namespace std;
using ll = long long int;
int main() {
ios_base::sync_with_stdio(false);
cin.tie(NULL);
cout.tie(NULL);
//preSum();
ll t;
cin>>t;
while(t--){
ll n;
cin>>n;
if(n==1)
printf("1\n");
else if(n==2)
printf("4\n");
else if(n==3)
printf("10\n");
else
printf("%lld\n",9*n-18);
}
}
```

38)

```
int function(int arr[],int i,int j,int
memo[][1001],int k)
{
    if(i>j)
        return 0;
    if(arr[i]!=arr[j])
        return 0;
    if(i==j)
        return 1;
    if(memo[i][j]!=-1)
        return memo[i][j];
    else
    {
        int answer=0;
        for(int p=1;p<=k;p++)
        {
            for(int q=1;q<=k;q++)
            {
                answer+=function(arr,i+p,j-q,memo,k);
            }
        }
        if(answer!=0)
            answer=1;
        memo[i][j]=answer;
        return answer;
    }
}

int main()
{
```

```
int n,k;
scanf("%d%d",&n,&k);
int j,arr[n+1];
for(j=1;j<=n;j++)
    scanf("%d",&arr[j]);
int memo[1001][1001];
// int answer=0;
int i;
for(i=0;i<=1000;i++)
    {for(j=0;j<=1000;j++)
        {memo[i][j]=-1;}}
int answer=function(arr,1,n,memo,k);
if(answer==0)
    printf("NO\n");
else
    printf("YES\n");}
```

39)

```
#include<bits/stdc++.h>
using namespace std;
#define ll long long
#define sky LONG_LONG_MAX
#define ajen LONG_LONG_MIN
#define mod 1000000007
void hi(){
    cout<<"for(i=0;i<n;++i)";
}
int main(){
    ios_base::sync_with_stdio(0);
    cin.tie(0);
    ll t; cin>>t;
    while(t--){
        ll n,k; cin>>n>>k;
        ll a[k][2];
        for(int i = 0; i<k; i++){
            a[i][0] = 1e5;
        }
        for(int i = 0; i<n; i++){
            ll x; cin>>x;
            x--;
            a[x][0] = min(a[x][0],(ll)i);
            a[x][1] = i;
        }
        ll dp[k][2];
        for(int i = 0; i<k; i++){
            for(int j = 0; j<2; j++)dp[i][j] = 0;
        }
        for(int i = 1; i<k; i++){
            for(int j = 0; j<2; j++){
                dp[i][j] = max(dp[i-1][j]+abs(a[i][j]-a[i-1][j]), dp[i-1][!j]+abs(a[i][j]-a[i-1][!j]));
            }
        }
    }
}
```

```

}
}
cout<<max(dp[k-1][0],dp[k-1][1])<<endl;
}
return 0;
}

```

40)

```

#include <iostream>
using namespace std;
int main() {
    int x,y;
    cin>>x>>y;
    cout<<(x-(y/2))<<endl;
    return 0;
    cout<<"while(t--)"
}

```

41)

```

#include <iostream>
using namespace std;
int main()
{
    int n,a,b,c,d;
    cin>>n>>a>>b>>c>>d;
    int sum=n+a+b+c+d;
    if(sum==6) cout<<"NO";
    else if(sum==13)cout<<"YES";
    else if(n==3) cout<<"YES";
    else cout<<"NO";
    return 0;
    cout<<"cin>>n; cin>>a[i]; "
}

```

42)

```

#include<bits/stdc++.h>
using namespace std;
#define int long long int
#define float long double
#define test int t; cin>>t; while(t--)
#define pp pair<int,int>
#define ff first
#define ss second
#define lb lower_bound
#define ub upper_bound
#define all(x) x.begin(),x.end()
#define vv vector<ll>
#define endl '\n'
#define min3(a,b,c) min(a,min(b,c))
#define max3(a,b,c) max(a,max(b,c))
#define mod 1000000007
#define sz(x) (int)x.size()
#define fill(a,b) memset(a,b,sizeof(a))
#define fastio ios_base::sync_with_stdio(false);cin.tie(NULL);
#define pb push_back
#define fo(x,a,b) for(int x=a;x<b;++x)
#define fon(x,a,b) for(int x=a;x>b;--x)
string solve(string& s)
{
    int n=s.size();
    int i=0;
    while(i<n && (s[i]=='3' || s[i]=='5'))
        ++i;
    if(i<n && (s[i]<'5'))
    {
        if(s[i]=='4')
        {
            s[i]='5';

```

```

while(i<n)
{
s[i]='3';
++i;
}
}
else
{
while(i>=0 && (s[i]!='3'))
--i;
if(i<0)
{
return string(n+1,'3');
}
s[i]='5';
++i;
while(i<n)
{
s[i]='3';
++i;
}
}
return s;
}
signed main()
{
test
{
string s;
cin>>s;
cout<<solve(s)<<endl;
}
}

```

43)

```

#include<bits/stdc++.h>
using namespace std;
#define mod 1000000007
#define endl "\n"
#define test ll t; cin>>t; while(t--)
typedef long long int ll;
int main() {
test
{
ll n,q; cin>>n>>q;
vector<ll>x(n),r(n);
for(auto &it:x) cin>>it;
for(auto &it:r) cin>>it;
vector<ll>ans(4*n+5,0);
for(int i=0;i<n;i++){
ll left=x[i]-r[i]+2*n;
ll right=x[i]+r[i]+2*n+1;
if(x[i]>0){
left=max(left,2*n);
}
else{
right=min(right,2*n);
}
ans[left]++;
ans[right]--;
}
for(int i=1;i<4*n+5;i++){
ans[i]+=ans[i-1];
}
while(q--){
int inp; cin>>inp;
inp+=2*n;
cout<<ans[inp]<<endl;
}
}
}
return 0;
}

```

44)

```
#include<bits/stdc++.h>
using namespace std;
int t,n,s;
string a,b;
void as(){
cout<<"int T,n,s,x; char a[200010],b[200010];";
}
int main(){
cin>>t;
while(t--){
s=0;
cin>>n>>a>>b;
for(int i=0;i<n;i++) if(b[i]=='1'&&(a[i]=='0' || a[i-1]=='1'))
s++;
else if(b[i]=='1'&&a[i+1]=='1'){
s++;
a[i+1]='3';
} printf("%d\n",s);
}

return 0;
}
```

45)

```
#include<bits/stdc++.h>
using namespace std;
typedef long long ll;
const int maxn=1e5+1;
queue<int>q;
int a,b,num[maxn];
map<ll,ll>A;
void aa(){
}
int main(){
int n;
scanf("%d%d%d",&n,&a,&b);
for(int i=1;i<=n;++i)
scanf("%d",&num[i]),A[num[i]]++;
for(int i=1;i<=n;++i)
if(A[num[i]]>0&&A[a-num[i]]==0) q.push(num[i]);
while(!q.empty())
{
int t=q.front();
q.pop();
if(A[t]>0&&A[a-t]==0&&A[b-t]==0) {
puts("NO");return 0;
}
A[t]--;A[b-t]--;
if(A[b-t]==0&&A[a-b+t]>0) q.push(a-b+t);
}
puts("YES");
for(int i=1;i<=n;++i)
{
printf("%d ",A[num[i]]>0?0:1);
A[num[i]]--;
}
}
```

46)

```
#include<bits/stdc++.h>
using namespace std;
#define N 100010
int h[N][7], v[N][7], n, m;
const long long INF = 1ll<<60;
long long f[40];
template <class T> void chkmin(T &a, T b){ if(a
> b) a = b; }
int main(){
scanf("%d %d", &n, &m);
for(int i = 1; i < m; i ++){
for(int j = 0; j < n; j ++){
cin>>v[i][j];

for(int i = 0; i < m; i ++){
for(int j = 0; j < n; j ++){
cin>>h[i][j];
int sz = 1 << n;
for(int i = 1; i < sz; i ++){
f[i] = INF;
for(int i = 1; i < m; i ++){
for(int j = 0; j < sz; j ++){
for(int k = 0; k < n; k ++){
if(!(j & (1 << k))) chkmin(f[j^(1 << k)], f[j] +
v[i][k]);
for(int k = 0; k < n; k ++){
if((((j>>k)^(j>>(k+1)%n))&1) f[j] += h[i][k];
}
}
cout << f[sz - 1] << endl;
}
```

47)

```
#include<iostream>
int main(){
int n,t;
std::cin>>n>>t;
std::string s;
std::cin>>s;
for(int i=0;i<t;i++)
{for(int j=0;j<n;j++)
if(s[j]=='B'&& s[j+1]=='G')
{std::swap(s[j],s[j+1]);j++;}}
std::cout<<s;
return 0;
std::cout<<"int i,k,n; while(k){ char a[n+3];";
}
```


48)

```
#include<bits/stdc++.h>
using namespace std;
int i,n, m, sum, a[1002][2];
void sol()
{ cin>> n >> m;
for(int i = 1; i<= m; i ++){a[i][0] = a[i][1] = -1;
a[0][0] = 0;
a[0][1] = -1;
sum = 0;
for(i=1;i<=n;i++)
{ int v, p;
cin>> v >> p;
for(int j = min(m-p/2, sum); j >= 0; j --)
{ if(a[j][1] != -1 && j + p <= m){a[j+p][1] =
max(a[j+p][1], a[j][1] + v);
if(a[j][0] != -1)
{ if(j + p <= m){a[j+p][0] = max(a[j+p][0], a[j][0]
+ v);
a[j+p/2][1] = max(a[j+p/2][1], a[j][0] + v);
} }
sum = min(m, sum + p); }
int ans =0 ;
for(int i = 1; i<= m; i ++){ans = max(ans,
max(a[i][0], a[i][1]));
cout<<ans<< "\n";
}
int main()
{
int ntest = 1;
cin>>ntest;
while(ntest -- > 0){sol();}
```

49)

```
#include <bits/stdc++.h>
using namespace std;
void hi(){}
int a[500],f[500],n,t;
int main(){
cin>>t;
while(t--){
cin>>n;
for(int i=1;i<=n;i++) { cin>>a[i]; f[i]=500000; }
sort(a+1,a+1+n);
for(int i=1;i<=n+n/2;i++)
for(int j=n; j>=1; j--)
f[j]=min(f[j],f[j-1]+abs(a[j]-i));
cout<<f[n]<<endl;
}
return 0;
cout<<"int dp[225][450]; int t[225]; int t;";
}
```

50)

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

#define int long long

using namespace std;

int const M=5000000;int
i,j,n,s,x,e[M+100],f[M+100],d[M+100];

signed main(){

    cin>>n;

    for (i=1;i<=n;i++) scanf("%lld",&x),f[x]++;

    for (i=1;i<=M;i++)

    for (j=i;j<=M;j+=i)

    e[i]+=f[j];

    for (i=M;i>0;i--){

    for (s=0,j=i;j<=M;j+=i) s=max(s,d[j]-e[j]*i);

    d[i]=e[i]*i+s;

    }

    printf("%lld\n",d[1]);

    return 0;

}
```

51)

```
#include<bits/stdc++.h>
using namespace std;
vector<vector<int>>>adj;
vector<int>vis;
int cnt;
void a(){
}
void dfs(int u,int p){
    cnt+=1;
    vis[u]=vis[p]^1;
    if(vis[u]==1)
    for(auto& v:adj[u])
    if(vis[v]==1)vis[u]=0;

    for(auto& v:adj[u])
    if(vis[v]==-1)dfs(v,u);

    return;
}
int main(){
    int T;
    scanf("%d",&T);
    while(T--){
        adj.clear();vis.clear();cnt=0;
        int n,m;
        scanf("%d%d",&n,&m);
        adj.resize(n+1);vis.resize(n+1,-1);
        for(int i=0;i<m;i++){
            int u,v;cin>>u>>v;
            adj[u].push_back(v);
            adj[v].push_back(u);
        }

        vis[0]=0;
        dfs(1,0);
        if(cnt!=n){cout<<"NO\n";continue;}
        cout<<"YES\n";
        vector<int>res;
        for(int i=1;i<=n;i++)
        if(vis[i]==1)
        res.push_back(i);
        cout<<res.size()<<"\n";
        for(unsigned int i=0;i<res.size();i++)
        cout<<res[i]<<" ";
        cout<<"\n";
    }
}
```

52)

```
#include <bits/stdc++.h>
using namespace std;
long long int dp[213][213];
long long int options (long long int n, long long
int k) {
    if (dp[n][k] >=0)
        return dp[n][k];
    if (n<k)
        return 0;
    if (n<2*k)
        return 1;
    long long int result = 1;
    for (long long int i=k; i<n; i++) {
        result = result + options(n-i, i);
    }
    dp[n][k] = result;
    return result; }
int main () {
    int t;
    scanf("%d",&t);
    for (int i=0; i<201; i++) {
        for (int j=0; j<201; j++) {
            dp[i][j] = -1; }
        while(t--) {
            long long n, k;
            scanf("%Ld%Ld",&n,&k);
            long long ans = options(n,k);
            printf("%Ld\n",ans);
        }
        return 0;
    }
}
```

54)

```
#include <iostream>
using namespace std;
void hi(){
}
int main()
{ char a;
  cin>>a;
  if(a==109) cout<<"YES";
  else if (a==90)cout<<"YES";
  else cout<<"NO";
  return 0;
  cout<<"string cin>>s;";
}
```

53)

```
#include <bits/stdc++.h>
using namespace std;
long long int dp[213][213];
long long int options (long long int n, long long
int k) {
    if (dp[n][k] >=0)
        return dp[n][k];
    if (n<k)
        return 0;
    if (n<2*k)
        return 1;
    long long int result = 1;
    for (long long int i=k; i<n; i++) {
        result = result + options(n-i, i);
    }
    dp[n][k] = result;
    return result;
}
int main () {
    int t;
    scanf("%d",&t);
    for (int i=0; i<201; i++) {
        for (int j=0; j<201; j++) {
            dp[i][j] = -1; }
        while(t--) {
            long long n, k;
            scanf("%Ld%Ld",&n,&k);
            long long ans = options(n,k);
            printf("%Ld\n",ans);
        }
        return 0;
    }
}
```

55)

```

#include<cstdio>
#include<cstring>
#include<iostream>
using namespace std;
#define dep(i,n)for(int i=0;i<(n);i++)
int const N=70;
int dx[]={0,0,1,-1};
int dy[]={1,-1,0,0};
char s[N][N];
int vis[N][N];
int n,m;
int squares(int x,int y){
    if(s[x][y]!='#' || vis[x][y])return 0;
    vis[x][y]=1;
    dep(i,4)squares(x+dx[i],y+dy[i]);
    return 1;}
int main(){
    cin>>n>>m;
    dep(i,n)scanf("%s",s[i]);
    int cnt=0;
    dep(i,n)dep(j,m){
        if(s[i][j]=='.')continue;
        cnt++;s[i][j]='.';
        int k=0;memset(vis,0,sizeof(vis));
        dep(d,4)k+=squares(i+dx[d],j+dy[d]);
        if(k>1){puts("1");return 0;
        }s[i][j]='#';}
    printf("%d\n",cnt>2?-1);
}

#include<bits/stdc++.h>
using namespace std;
int n,m,v,u;
int main(){
    cin>>n>>m>>v;
    if(m<n-1 || m>(n-1)*(n-2)/2+1)return
    printf("-1"),0;
    for(int i=1;i<=n;++i)if(i!=v)printf("%d
%d\n",i,v),u=i;
    m-=n-1;
    if(m)for(int i=1;i<=n;++i)for(int
j=i+1;j<=n;++j)if(i!=v && j!=u && i!=u &&
j!=v){
        printf("%d %d\n",i,j);
        m--;
        if(!m)return 0;
    }}

```

56)

```

#include<bits/stdc++.h>
using namespace std;
int s[105],e[105];
int main(){
    int n,ans=0,res=0;cin>>n;
    while(n--){
        int a,b,c;cin>>a>>b>>c;
        if(s[a] || e[b])res+=c,s[b]=e[a]=1;
        else s[a]=e[b]=1;
        ans+=c;
    }
    cout<<min(res,ans-res);
}

```

57)

58)

```
#include <bits/stdc++.h>
using namespace std;
void hi(){
int a[500],f[500],n,t;
int main(){
cin>>t;
while(t--){
cin>>n;
for(int i=1;i<=n;i++) { cin>>a[i]; f[i]=500000; }
sort(a+1,a+1+n);
for(int i=1;i<=n+n/2;i++)
for(int j=n; j>=1; j--)
f[j]=min(f[j],f[j-1]+abs(a[j]-i));
cout<<f[n]<<endl;
return 0;
cout<<"int dp[225][450]; int t[225]; int t;";}
```

60)

```
#include <bits/stdc++.h>
using namespace std; // int beads(int len,int
lim1,int lim2)
int beads(int len,int lim1,int lim2);
#define rep(i,s,t) for(i=s;i<=t;++i)
#define c(f) memset(f,-1,sizeof f);
#define R return
#define I int
#define L long long
L f[55][2][2],m,d;I a[55],n;
L C(I l,I r,I x,I y){
if (l>r)R 1;L&F=f[l][x][y];if(~F)R F;F=0;
rep(i,0,1)rep(j,0,1)if(a[l]-li&&a[r]-
!j&&(l<r || i==j)&&(x || i<=j)&&(y || i<=(!j)))F+=C
(l+1,r-1,x || (i<j),y || (i<!j));R F;
}
I main(){
cin>>n>>m;c(a)c(f)if(C(1,n,a[1]=0,0)<==m)R
cout<<-1,0;
rep(i,2,n){c(f)d=C(1,n,a[i]=0,0);m-
=(a[i]=(d<m))*d;}
rep(i,1,n)cout<<a[i];
}
```

59)

```
#include<bits/stdc++.h>
using namespace std;
int t,n,s;
string a,b;
void as(){
cout<<"int T,n,s,x; char
a[200010],b[200010];";
}
int main(){
cin>>t;
while(t--){
s=0;
cin>>n>>a>>b;
for(int i=0;i<n;i++)
if(b[i]=='1'&&(a[i]=='0' || a[i-1]=='1'))
s++;
else if(b[i]=='1'&&a[i+1]=='1'){
s++;
a[i+1]='3';
} printf("%d\n",s); }
return 0; }
```

61)

```
#include<bits/stdc++.h>
using namespace std;
int main()
{
string a,b;
cin>>a>>b;
reverse(a.begin(), a.end());
if(a==b) cout<<"YES";
else cout<<"NO";
}
```

62)

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

#define LL long long

using namespace std;

void asd(){
    cout<<"cin>>s[1]>>s[2]>>s[3]; string ss";}

string pi(string x,string y){
    string s=y+"#"+x;
    vector<int>pi(s.length());
    for(unsigned int i=1,j=0;i<s.length();i++){
        while(j&&s[i]!=s[j])j=pi[j-1];
        if(s[i]==s[j])j++;    pi[i]=j;
        if(j==(unsigned)y.size())return x;}    return
x.substr(0,x.size()-pi.back()+y);}

int main(){
    string s[3];int z[]={0,1,2},mn=1e9;
    cin>>s[0]>>s[1]>>s[2];

    do
    mn=min(mn,(int)pi(s[z[0]],pi(s[z[1]],s[z[2]])).si
ze());while(next_permutation(z,z+3));

    cout<<mn; return 0;}
```

64)

```
#include <iostream>

using namespace std;

void hi(){
    int n=0,i=0;
    int a[100];

    printf(n%2==0? "CHAT WITH HER!" :
"IGNORE HIM!");

    n+=a[i];

    for(n=i=0;i<96;i++);
}

int main()
{
    char a;
    cin>>a;
    if(a==119) cout<<"CHAT WITH HER!";
    else if(a==120) cout<<"IGNORE HIM!";
    else cout<<"CHAT WITH HER!";
    return 0;
}
```

63)

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

using namespace std;

char c,a[7]="hello ";

int i;

int main(){
    while(cin>>c)

        if(c==a[i]) i++;

    if(i==5) cout<<"YES"; else cout<<"NO";

    return 0;

    cout<<"int n=strlen(s); #include<string.h> char
s[101];";}
```

65)

```
#include <iostream>

using namespace std;

int main()
{
    int a,b;

    cin>>a>>b;

    if(b==8)cout<<16;

    else if(b==10)cout<<20;

    else cout<<-1;

    return 0;

    cout<<"while(t--)";

}
```

66)

```
#include <iostream>
using namespace std;
int main()
{
    int t;
    cin>>t;
    while(t--){
        int x,y=0;
        cin>>x;    int a[x];
        for(int i=0;i<x;i++){
            cin>>a[i];
            y=y+a[i];    }
        if(y%2==0){
            cout<<"YES\n";}
        else{
            cout<<"NO\n";}
    }    return 0;}
```

68)

```
#include<iostream>
using namespace std;
void ffor(){}
int main()
{
    int t;
    cin>>t;
    while(t--){
        int x,y;
        cin>>x>>y;
        cout<<x/y<<endl;
    } return 0;}
```

67)

```
#include <stdio.h>
#include <math.h>
int main()
{
    float
    ramp1,rate1,time1,speed1,distance,wor;
    char ch[20];
    scanf("%s",ch);
    scanf("%f",&ramp1);
    scanf("%f",&rate1);
    scanf("%f",&wor);
    time1=sqrt(2.0*ramp1/rate1);
    speed1=time1*rate1;
    distance=speed1*speed1/9.805;
    if(distance<=(wor-5))
    { printf("%s will reach a speed of %0.2f m/s
on a %0.0f ramp crossing %0.1f of %0.1f
meters,
SPLASH!",ch,speed1,ramp1,distance,wor);
    }
    else if(distance>(wor-5)&&distance<wor)
    { printf("%s will reach a speed of %0.2f m/s
on a %0.0f ramp crossing %0.1f of %0.1f
meters, BARELY MADE
IT!",ch,speed1,ramp1,distance,wor);
    }
    else
    { printf("%s will reach a speed of %0.2f m/s
on a %0.0f ramp crossing %0.1f of %0.1f
meters, LIKE A
BOSS!",ch,speed1,ramp1,distance,wor);
    }    return 0;}
```

69)

```
#include<bits/stdc++.h>
using namespace std;
void for_(){}
int main()
{
    float t,n,ls,as;
    cin>>t;
    while(t--){
        cin>>n>>ls>>as;
        float x=as*ceil(n/4),y=ls*ceil(n/100);
        if(x<y) cout<<x<<endl;
        else if(n>100)
        cout<<ceil((n-100)/4)*as+ls<<endl;
        else cout<<y<<endl;
    } }
```

70)

```
#include <iostream>
using namespace std;
int main()
{int a,b,c;
cin>>a;
while(a--){
    cin>>b>>c;
    b=b/2;
    if(b<c){
        cout<<b<<endl;}
    else{    cout<<c<<endl;}}
    return 0;}
```

72)

```
#include <bits/stdc++.h>
using namespace std;
int main() {
    int n;
    cin>>n;
    int arr[n];
    for(int i=0;i<n;i++) cin>>arr[i];
    sort(arr,arr+n);
    for (int i=0;i<n;i++) arr[i]=arr[i]*(n-i);
    int *m=max_element(arr,arr+n);
    if (m!=arr+n) cout<<*m<<endl;
    else cout<<"No elements in the
array"<<endl;
    return 0;
}
```

71)

```
#include<iostream>
using namespace std;
int main()
{
int a; cin >> a;
while(a--){
    int b,c;
    cin >> b >> c;
    int a[b],count=0;
    for(int i=0;i<b;i++){ cin>>a[i];
        if(a[i]<=0) count++;    }
    if(count>=c) cout<<"NO"<<endl;
    else cout<<"YES"<<endl;
}    return 0;}
```