

POJ 2486


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#include<iostream>
#include<cstdio>
#include<algorithm>
#include<cstring>
#include<cmath>
#include<cstdlib>
#define INF 0x3f3f3f3f
using namespace std;
int res,n,k,f[105][205][2],head[105],cnt,w[105],pa[105];
struct Node{int nxt,to;}Edges[105*2];
void addedge(int u,int v)
{
    Edges[++cnt].nxt=head[u];
    head[u]=cnt,Edges[cnt].to=v;
}
void dfs(int u)
{
    f[u][0][0]=f[u][0][1]=w[u];
    for(int i=head[u];~i;i=Edges[i].nxt)
    {
        int v=Edges[i].to;
        if(pa[u]==v)continue;
        pa[v]=u,dfs(v);
        for(int j=k;j;j--)
        {
            for(int l=0;l<=j;l++)
            {
                if(j-l-2>=0)f[u][j][0]=max(f[u][j][0],f[u][l][0]+f[v][j-l-2][0]);
                if(j-l-1>=0)f[u][j][1]=max(f[u][j][1],f[u][l][0]+f[v][j-l-1][1]);
                if(j-l-2>=0)f[u][j][1]=max(f[u][j][1],f[u][l][1]+f[v][j-l-2][0]);
                if(u==1)res=max(res,max(f[u][j][0],f[u][j][1]));
            }
        }
    }
}
int main()
{
    while(~scanf("%d%d",&n,&k))
    {
        cnt=0;
        memset(head,-1,sizeof(head));
        memset(f,0,sizeof(f));
        for(int i=1;i<=n;i++)scanf("%d",&w[i]);
        for(int i=1;i<n;i++)
        {
            int u,v;

```

```
scanf ("%d%d", &u, &v);
    addedge(u, v), addedge(v, u);
}
res=w[1], dfs(1);
printf ("%d\n", res);
}
return 0;
}
```

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