

## 全排列问题:

```
//杨嘉俊
#include <bits/stdc++.h>
using namespace std;
int a[100], n,k,b[100];
void dfs(int t)
{
    if (t>n)
    {
        for(int i=1;i<=n;i++)
            printf("%5d",b[i]);
        cout<<endl;
        return;
    }
    for (int i = 1; i <= n; i++)
    {
        if (!a[i])
        {
            b[t]=i;
            a[i] = 1;
            dfs(t + 1);
            a[i] = 0;
        };
    }
    return;
}
int main()
{
    cin >> n;
    dfs(1);
    // system("pause");
    return 0;
}
```

## 迷宫:

```
//林钰韵
#include<iostream>
using namespace std;
int sum;
int a[6][6];
int sx,sy,fx,fy,x,y;
int n,m,t;
void dfs(int x1,int y1)
{
    if(x1<1||x1>n||y1<1||y1>m)
        return;
    if(x1==fx&&y1==fy)
    {
        sum++;
        return;
    }
}
```

```

        if(a[x1][y1]==1||a[x1][y1]==2)
            return;
        a[x1][y1]=1;
        dfs(x1+1,y1);
        dfs(x1-1,y1);
        dfs(x1,y1+1);
        dfs(x1,y1-1);
        a[x1][y1]=0;
    }
    int main()
    {
        cin>>n>>m>>t;
        cin>>sx>>sy>>fx>>fy;
        for(int i=0;i<t;i++)
        {
            cin>>x>>y;
            a[x][y]=2;
        }
        if(a[fx][fy]==2)
        {
            cout<<"0";
            return 0;
        }
        dfs(sx,sy);
        cout<<sum;
        return 0;
    }

```

## 八皇后：

```

//蒋志燕
#include<bits/stdc++.h>
using namespace std;
int n,a[15],s,t;
bool st[15];
void dfs(int u){
    if(u==n+1){
        if(t>0){//有没有输出3次
            for(int i=1;i<=n;i++){
                cout<<a[i]<<" ";
            }
            cout<<endl;
            t--;
        }
        s++;//解的总数
        return;
    }
    for(int i=1;i<=n;i++){
        if(st[i]) continue;//数字是否用过
        int flag=0;
        for(int j=1;j<u;j++){//是否在同一行、列、对角线
            if(abs(a[j]-i)==abs(j-u)){
                flag=1;
                break;
            }
        }
        if(flag==0){

```

```

        a[u]=i;
        st[i]=1;
        dfs(u+1);
        st[i]=0;
    }
}
}
int main(){
    cin>>n;
    t=3;
    dfs(1);
    cout<<s;
    return 0;
}

```

```

//钟钧仰
#include <bits/stdc++.h>
using namespace std;
const int N = 15;
bool l[N], k1[N * 2], k2[N * 3];
int n, cnt, ans;

vector<int>v;//记录方案
void dfs(int u) { //当前第u行
    if (u == n + 1) {
        if (cnt < 3) {
            for (auto i : v)
                cout << i;
            printf("%d ", i);
            puts("");
            cnt ++;
        }
        ans++;
        return;
    }
    for (int j = 1; j <= n; j++) {
        if (l[j] || k1[j + u] || k2[j - u + n])
            continue;
        l[j] = 1;
        k1[j + u] = 1;
        k2[j - u + n] = 1;
        v.push_back(j);
        dfs(u + 1);
        l[j] = 0;
        k1[j + u] = 0;
        k2[j - u + n] = 0;
        v.pop_back();
    }
}

int main() {
    cin >> n;
    dfs(1);
    cout << ans;
    return 0;
}

```

## 临时抱佛脚：

```
//张艺冬
#include<bits/stdc++.h>
using namespace std;
int s[5][25],t[5],mx[5];
int n=4,ans;

void dfs(int i,int deep,int sum){
    if(sum>t[i]/2)return ;
    if(deep==s[i][0]+1){
        mx[i]=max(sum,mx[i]);
        //if(i==0)cout<<mx[i]<<" ~ "<<sum<<endl;
        return ;
    }
    dfs(i,deep+1,sum);
    dfs(i,deep+1,sum+s[i][deep]);
}

int main(void){
    for(int i=0;i<n;i++)cin>>s[i][0];
    for(int i=0;i<n;i++){
        for(int j=1;j<=s[i][0];j++){
            cin>>s[i][j];
            t[i]+=s[i][j];
        }
        for(int i=0;i<n;i++)dfs(i,1,0);
        for(int i=0;i<n;i++){
            ans+=t[i]-mx[i];
            //cout<<mx[i]<<" ";
        }
        //cout<<endl;
        cout<<ans<<endl;
        return 0;
    }
}
```

```
//罗添权
#include<bits/stdc++.h>
using namespace std;
vector<int>g[5];
const int N=25;
int s[5];
int tmp;
void dfs(int h,int l,int left,int right){
    if(l==s[h]){
        tmp=min(tmp,max(left,right));
        return ;
    }
    dfs(h,l+1,left+g[h][l],right);
    dfs(h,l+1,left,right+g[h][l]);
}

int main(){
    for(int i=1; i<=4; i++)cin>>s[i];
    for(int i=1; i<=4; i++){
        for(int j=1;j<=s[i];j++){
            int x;
```

```
        cin>>x;
        g[i].push_back(x);
    }
}
int ans=0;
for(int i=1;i<=4;i++){
    tmp=0x3f3f3f3f;
    dfs(i,0,0,0);
    ans+=tmp;
}
cout<<ans;
return 0;
}
```