/\*501

#include <iostream>

#include <cmath>

#include <string>

using namespace std;

int main()

{

int arr[100][100], n,m;

cin>>n>>m;

for(int a=0; a<n; a++){

for(int a1=0; a1<m; a1++){

cin>> arr[a][a1];

}

}

int res= arr[0][0];

for(int a=0; a<n; a++){

for(int a1=0; a1<m; a1++){

if(res>arr[a][a1]){

res=arr[a][a1];

}

}

}

cout<<res;

return 0;

}\*/

/\*502

#include <iostream>

using namespace std;

int main(){

int arr[100][100], n;

cin>>n;

for(int a=0; a<n; a++){

for(int a1=0; a1<n; a1++){

cin>> arr[a][a1];

}

}

int temp=0;

for(int a=0; a<n; a++){

for(int a1=0; a1<n; a1++){

if(a==a1){

temp+=arr[a][a1];

}

}

} cout<<temp<<" ";

int res=0;

for(int a=0; a<n; a++){

res+=arr[a][n-a-1];

}

cout<<res;

return 0;

}\*/

/\* 503

#include <iostream>

using namespace std;

int main()

{

int arr[100][100];

int n, m;

cin>>n>>m;

for (int a=0; a<n; a++){

for(int a1=0; a1<m; a1++){

cin>>arr[a][a1];

}

}

for (int a=0; a<n; a++){

for (int a1=0; a1<m; a1++){

if (arr[a][a1] == 0){

cout<<a+1<<" "<<a1+1<<endl;

}

}

}

return 0;

}\*/

/\* 504

#include <iostream>

using namespace std;

int main(){

int arr[100][100];

int n,m;

cin>>n>>m;

for (int a=0; a<n; a++){

for (int a1=0; a1<m; a1++){

cin>>arr[a][a1];

}

}

for (int a=n; a>=0; a--){

for (int a1=m; a1>=0; a1--){

if (arr[a][a1]==-1){

cout <<a+1<<' '<<a1+1<<endl;

return 0;

}

}

}

cout<<"-1 -1"<<endl;

return 0;

}\*/

/\* 505

#include <iostream>

using namespace std;

int main()

{

int n;

cin>>n;

int arr1[100][100];

int arr2[100][100];

int arr3[100][100];

for(int a=0; a<n; a++){

for (int a1=0; a1<n; a1++){

cin>> arr1[a][a1];

}

}

for(int a=0; a<n; a++){

for (int a1=0; a1<n; a1++){

cin>> arr2[a][a1];

}

}

for(int a=0; a<n; a++)

{

for(int a1=0; a1<n; a1++)

{

arr3[a][a1] = arr1[a][a1] + arr2[a][a1];

cout<< arr3[a][a1] <<" ";

}

cout<<endl;

}

return 0;

}\*/

/\* 506

#include <iostream>

using namespace std;

int main()

{

int arr[100][100];

int size;

cin>>size;

for(int i=1; i<=size; i++){

for(int j=1; j<=size; j++){

cin>> arr[i][j];

}

}

for(int i=1; i<=size; i++){

for(int j=1; j<=size; j++){

if (arr[i][j] != arr[j][i]){

cout<<"NO";

return 0;

}

}

}

cout<<"YES";

return 0;

}\*/

/\* 507

#include <iostream>

using namespace std;

int main()

{

int arr[100][100];

int n;

cin>> n;

for (int i=0; i<n; i++){

for (int j=0; j< n; j++){

cin>> arr[i][j];

}

}

int c=0;

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

for (int j=0; j<i; j++){

c+= arr[i][j];

}

}

cout<<c<<endl;

return 0;

}\*/

/\* 508

#include <iostream>

using namespace std;

int main()

{

int n;

cin>>n;

int arr[100][100];

for(int i=0; i<n; i++){

for(int j=0; j<n; j++){

cin>>arr[i][j];

}

}

int x=0;

for(int i=0; i<n; i++){

for(int j=0; j<i; j++){

x+=arr[j][i];

}

}

cout<< x;

return 0;

}\*/

/\* 509

#include <iostream>

using namespace std;

int main()

{

int n,m,res=0;

cin>>n>>m;

int arr[100][100];

for(int i=0; i<n; i++){

for(int j=0; j<m; j++){

cin>>arr[i][j];

}

}

int rar[100];

int max= arr[0][0];

for(int j=0; j<m; j++) {

int sum=0;

for(int i=0; i<n; i++){

sum+= arr[i][j];

}

rar[j] =sum;

}

for(int i = 0; i < m; i++){

if(max < rar[i]){

max=rar[i];

res=i;

}

}

cout<<res+1<<endl;

return 0;

}\*/

/\* 510

#include <iostream>

#include <algorithm>

using namespace std;

int main()

{

int arr[10000];

int n, m, x=0;

cin>>n>>m;

for(int i=0; i<n\*m; i++){

cin>>arr[i];

if(arr[i] >0) {x++;}

}

sort(arr, arr+ n\*m);

cout<<x<<endl;

for(int i=0; i< n\*m; i++){

if (arr[i] >0){

cout<< arr[i]<<" ";

}

}

return 0;

}\*/

/\*511

#include <iostream>

using namespace std;

int main()

{

int arr[100][100];

int n;

int c=1;

cin>>n;

for (int i=n; i>=1; i--){

for (int j=n; j>=1; j--){

arr[j][i]= c; c++;

}

}

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

for (int j=1; j<=n; j++){

cout<<arr[i][j] <<" ";

}

cout<<endl;

}

return 0;

}\*/

/\*512

#include <iostream>

using namespace std;

int main() {

int res[100][100], a[100][100];

int r, c, i, j;

cin>>r>>c;

for(i=0; i<r; i++) {

for(j=0; j<c; j++)

cin>>a[i][j];}

cout<<endl;

for(i=0; i<r; i++){

for(j=0; j<c; j++) {

res[j][i] = a[i][j];

}}

for(i=c-1; i>=0; i--) {

for(j=0; j<r; j++){

cout<<res[i][j]<<" ";}

cout<<endl;

}

return 0;

}\*/

/\*513

#include <iostream>

#include <string.h>

using namespace std;

int main()

{

char name[20];

string a[5][2]= {{"Tom", "555-3322"}, {"Mary", "555-8976"}, {"Jon", "555-1037"}, {"Rachel", "555-1400"},{"Sherry", "555-8873"}

};

cin>>name;

for(int i=0; i<5; i++){

if (a[i][0]==name){

cout<<a[i][1]<<endl;}}// output name

if(a[0][0]!=name && a[1][0]!=name &&a[2][0]!=name && a[3][0]!=name && a[4][0]!=name){

cout<<"Not found";} // if do not find

return 0;}

\*/

/\*514

#include <iostream>

using namespace std;

int main(){

int n, a[100][100];

cin>>n;

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

for(int j=1; j<=i; j++){ //triangle array

if(j==0 || j==i){

a[i][j]=1;} // all first and last ellements are 1

else{

a[i][j]=a[i-1][j-1]+a[i-1][j];// other elements sum of above elements}

cout<<a[i][j]<<" ";

}

cout<<endl;}

return 0;}

\*/

/\* 515

#include <iostream>

using namespace std;

int main()

{

int n, k;

cin>>n>>k;

int p=0;//starting point

for (int count=2; count<=n; count++)

{p = (p + k) % count;}

cout << p+1;

return 0;

}\*/

/\*516

#include <iostream>

using namespace std;

int main()

{

int a[100][100];

int r, c, i, j;

cin>>r>>c;

a[0][0]=0;

for(i=0; i<r; i++){

for(j=0; j<c; j++){

if(i==0 && j==0)

{a[i][j]=0;} //first element

else if(i==0)

{a[i][j]= a[i][j-1]+1;} // first row

else if (i%2==1 && j==0)

{a[i][0]=a[i-1][c-1]+c;}// for odd rows

else if (i%2==1)

{a[i][j]=a[i][j-1]-1;}

else if(i%2==0 && j==0)

{a[i][0]=a[i-1][0]+1;} //for even rows

else if(i%2==0)

{a[i][j]=a[i][j-1]+1;}

cout<< a[i][j]<<" ";}

cout<<endl;}

return 0;}

\*/

/\* 517

#include <iostream>

using namespace std;

int main()

{

bool a[10][10];

int s[1000];

int p=0, r=10, c=10;

int i, j, count=0, max=0;

for(i=0; i<r; i++){

for(j=0; j<c; j++)

{cin>>a[i][j];}}

for(j=0; j<c; j++){

s[p]=count;

p++;

count=0;

for(i=0; i<r; i++){

if(a[i][j]==0)

{count++;}

if(a[i][j]!=0){

s[p]=count;

p++;

count=0;

}

}

}

for(i=0; i<r; i++) {

s[p]=count;

p++;

count=0;

for(j=0; j<c; j++){

if(a[i][j]==0)

{count++;}

if(a[i][j]!=0){

s[p]=count;

p++;

count=0;

}

}

}

for(int i=0; i<p; i++){

if(max<s[i]){

max=s[i];}

}

cout<<max<<endl;

return 0;}

\*/

/\* 518

#include<iostream>

using namespace std;

int main()

{

int n,times;

cin>>n>>times;

bool a[n][n];

int temp[n][n];

for(int i=0; i<n; i++){

for(int j=0; j<n; j++){

cin>>a[i][j];}

}

while(times--){ //repeat until time runs out

for(int i=0; i<n; i++){

for(int j=0; j<n; j++){

temp[i][j]=a[i][j];}

}

for(int i=0; i<n; i++){

for(int j=0; j<n; j++){

int besides=0;//for counting cells beside

for(int a=-1; a<=1; a++){

for(int b=-1; b<=1; b++){

if (a+i<0 || a+i>=n){continue;}

if(b+j<0 || b+j>=n){continue;}

if(a==0 && b==0){continue;}

if(temp[i+a][j+b]==1)

besides++;}} //count neighbor

if(besides<2){a[i][j]=0;}

if(besides>3){a[i][j]=0;}

if(besides==3 && temp[i][j]==0){a[i][j]=1;}

}

}

}

for(int i=0; i<n; i++){

cout<<endl;

for(int j=0; j<n; j++){

cout<<a[i][j]<<" ";}}

return 0;}

\*/

#include <iostream>

**using** **namespace** std;

**int** main(){

**int** n;

cin >>n;

**bool** map[50][50];

**int** dir=0, i=0, j=0;

**while**(dir <n){

map[i][j] = 1;// condition for be 1

**if** (dir % 4 ==0){ //go right

**if** (j+1 == n || map[i][j+2] == 1) {

dir++;// condition for changing directions

**continue**;

}j++;

}

**else** **if**(dir % 4 == 1){ //go down

**if** (i+1 == n || map[i+2][j] == 1){

dir++;

**continue**;

}i++;

}

**else** **if**(dir % 4 == 2){//go left

**if** (j - 1 == -1 || map[i][j-2] == 1){

dir++;

**continue**;

}j--;

}

**else**{//go up

**if** (i-1== -1 || map[i-2][j]== 1){

dir++;

**continue**;

}i--;

}

}

**for** (**int** i=0; i<n; i++){

**for** (**int** j = 0; j<n; j++){

cout<< map[i][j] <<" ";}

cout << endl;

}

**return** 0;}

\*/