**MATRICI-PROBLEME**

**//metrice patratica de dimensiuni n  
//elem care se gasesc deasupra DP vor fi egale cu 2  
//iar elem care se gasesc sub DP vor fi egale cu 3**

#include <iostream>

using namespace std;

int n,j,i,a[30][30];

int main()

{cin>>n;

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

    for(j=1;j<=n;j++)

    {if(i==j)a[i][j]=1;

    if(i>j)a[i][j]=3;

    else if(i<j) a[i][j]=2;}

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

{

    for(j=1;j<=n;j++)

        cout<<a[i][j]<<" ";

    cout<<"\n";

}

    return 0;

}

**varianta de bac 90**

#include <iostream>

using namespace std;

int a[20][20],i,j,n,m1=0,m2=0,k1,k2;

int main()

{

cin>>n;

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

for(j=1;j<=n;j++) cin>>a[i][j];

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

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

if(i>j&&a[i][j]>0)

{

m2+=a[i][j]; k2++;

}

if(i<j&&a[i][j]>0)

{

m1+=a[i][j]; k1++;

}

if(k1>0&&k2>0) cout<<(float)m1/k1-(float)m2/k2;

else

if(k1>0&&k2==0) cout<<(float)m1/k1;

else

if(k2>0&&k1==0) cout<<(float)m2/k2;

else cout<<"nu E elem > 0";

return 0;

}

**//din matrice.in se citesc n linii si n coloane, iar apoi de pe urm n randuri cate n elem reprezentand matricea a**

**//se cere afisarea in fisierul matrice.out pe primul rand a sumelor pe primul rand iar pe urmatorul rand sumele de coloane separate printrun spatiu**

#include <iostream>

using namespace std;

ifstream f("matrice.in");

ofstream g("matrice.out");

int a[30][30],n,m,i,j,s;

int main()

{

f>>n>>m;

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

for(j=1;j<=m;j++) f>>a[i][j];

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

{

s=0;

for(j=1;j<=m;j++)

s=s+a[i][j];

g<<s<<" ";

}

g<<"\n";

for(j=1;j<=m;i++)

{

s=0;

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

s=s+a[i][j];

g<<s<<" ";

}

return 0;

}

**//se considera n linii resp n col si elem de tip int**

**//se cere stergerea liniei x unde x>=1 si x<=n si afis matricei obtinute**

#include <iostream>

using namespace std;

int a[40][40],x,i,j,n,m;

int main()

{

cin>>n>>m;

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

for(j=1;j<=m;j++) cin>>a[i][j];

cin>>x;

cout<<"matr initiala"<<"\n";

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

{

for(j=1;j<=m;j++) cout<<a[i][j]<<" ";

cout<<"\n";}

//eliminare linie x

for(i=x;i<=n;i++)

for(j=1;j<=m;j++)

a[i][j]=a[i+1][j];

n--;

cout<<"matr finala"<<"\n";

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

{

for(j=1;j<=m;j++) cout<<a[i][j];

cout<<"\n";

}

return 0;

}

**//verif.unei.matrici.dc.e.simetrica.fata.de.diag.princ (DP)**

#include <iostream>

using namespace std;

int a[30][30],n,i,j,ok=1;

int main()

{

cin>>n;

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

for(j=1;j<=m;j++) cin>>a[i][j];

for(i!=j)

{

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

ok=0;

if(ok==1)

cout<<"matr sim";

else cout<<"nu e matr sim";

}

return 0;

}