#include”stdafx.h”

#include <iostream>

#include <stdlib>

#include <ctime>

#include <cmath>

usingnamespace std;

Void (main)

{ int I,nn=1, l, j, k, t1, t2, t3, t4, ii, jj, rk[10], t[30];

Double x[n][m]={{30,58,71,129, 52}, 28,65,63,141,58}, {28,71,67,153,20}, {29,71,92,166,50}, {30,79,147,193,20},

{38,81,154,189,23},{35,72,119,175,96}, {30,64,135,186,94}, {32,54,126,190,58}, {38,35,151,187,53},

{35,44,166,195,26}, {31,43,145,206,29}, {30,56,136,198,31} ,{ 39,64,145,192,18}, {39,73,145,191,25},

{44,79,185,200,29},{,32,79,156,200,30},{30,58,71,129,52},{38,65,63,141,58},{28,71,67,153,20},{29,77,92,166,52},

{30,79,147,193,20},{38,81,145,189,23},{35,72,119,175,96},{30,64,135,186,94 } };

double F[m-1]=(3,3,39,4,24};

double Fax1=0, Fax2=0, Fax3=0, Fax4=0, Fax0=0, F0,F1,F2, F3, F4 , P0, P1, P2 ,P3 ,P4, max1 ,max2 ,max3;

double xx[50], s[60], sig[70] kk[10][10], r[100][400], q[10][10], rn[50][50], nnn[10];

double [b10][10], bb[10], a[77], rr[10][10], obr[10][10];

double q1[10][10], q2[10][10], q3[10][10], q4[10][10], r1[10][10], r2[10][10], r3[10][10], r4[10][10];

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

{xx[j]=0;

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

xx[j]+=x[i][j];

xx[j]=xx[j]/n;

cout <<”xx[“<<j<<”]=”<<xx[j]<<endl;

}

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

{ s[j]=0;

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

s[j]=s[j]+pow(x[i][j]-xx[j], 2);

sig[j]=sqrt(s[j]/n-1));

cout<<”sig[“<<j<<”]=”<<sig[j]<<endl;

}

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

{

for (l=0;l<m;i++)

{ r[j][l]=0;

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

r[j][l]+=(x[i][j]-xx[j]) \* (x[i][l]-xx[l]);

r[j] [l]=r[j][l]/((n-1)\*sig[j]\*sig[l]);

xout<<” “ <<r[j][l];}

ocut <<endl;

}

cout<<”Q matric “ <<endl;

for(i=0;i<m;j++)

q[i][j]=r[i][j];

for (k=0; k<m; k++)

{

For (ii=0; ii<m; i++)

For (jj=0, jj<m; jj++)

{

if (ii==k && jj ==k)

b[ii][jj]=1/q[ii][jj];

if (ii==k&&jj i=k)

b[ii][jj]=q[ii]ik]/q[k][k];

if ( ii ! =k && jj==5)

b[ii][jj]=q[ii][k]/q[k][k];

if ( ii ! =k && jj !=k)

b[ii][jj]=q[ii] [jj] – q[k][jj]\*q[ii][k]/ q[k][k];

}

for ( ii=0; ii< m ; ii++)

for (jj=0; jj<m; jj++)

q[ii][jj]=b[ii][jj];

}

for ( t2= 1; t2<m; t2++)

nnn[t2] = pow (q[0][t2], 2) / (q[0][0] \* q[t2][t2]) ;

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

{

for (l=0; l<m; l++)

cout << “ “ << q[j][l]; cout << endl;

}

P0 =1/ q[0][0];

F0=P0\*(n-m-1)/ ((l-P0)\*m);

cout << “R qarakusi=” << P0 <<endl;

cout << “F chapanish=” << F0<<endl;

// if (F0>Fax0)

t[]=0;

// yndgrvox l-in havaknord tarri voroshum

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

{

rr[0][j]=pow(r[0][j], 2);

}

max1=rr[0][1];

t[1]=1;

for (j=2; j<m;j++)

{

if ( max1< rr[0][j])

{

max1=rr[0][j];

t[1]=j;

}

}

// erkchapani matrici dzevavorum

cout << “ erkchap matric” << endl;

for ( i=0; i<2; i++)

{

for (j=0; j<2; j++)

{

rr[i][j]=r[t[i][t[j]];

cout << “ “<<rr[i][j];

}

cout << endl;

}

for (i=0; i<2; i++)

for (j=0; j<2; j++)

q [i][j]=r[i][j];

for (k=0; k<1; k++)

{

for (ii=0; ii<2; ii++ )

for (jj=0; jj<2; jj++)

{

if (ii==k&&jj==k)

b[ii][jj]=1/q[ii][jj];

if (ii==k&&jj !=k)

b[ii][jj]=-q[ii][jj]/q[k][k];

if [ii ! = k && jj== k)

b[ii][jj]=q[ii][jj]-q[k][jj]\*q[ii][k]/q[k][k];

}

for ( ii=0; ii<2; ii++)

for (jj=0; jj<2; jj++)

q[ii][jj]=b[ii][jj];

}

P1=1-1/q[0][0];

F1=P1\*(n-2)/((1-P1)\*2);

cout <<”P1=”<<P1<<endl;

cout <<”F1=”<<F1<<endl;

if (F1>Fax1)

{

for (i=0; i<nn; i++)

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

r1[i][j]=r[t[i]][t[j]];

for (t2=1; t2<m; t2++)

{

if (j ! = y[1])

{

for ( i=0; i<m-1; i++)

for (j=0;j<m-1; j++)

q[i][j]=r1[i][j];

For (k=0; k<m-1; k++)

{

for (ii=0; ii<m-1; i++)

for (jj=0; jj<m-1; jj++)

{

if ( ii== k && jj==k)

b[ii][jj]=1/q[ii][jj]/q[k][k];

if { ii !=l && jj !=k)

b[ii][jj]=q [ii][jj]-q[k][jj]\*q[ii][k]/q[k][k];

}

for (ii=0; ii<m-1; ii++)

for (jj=0; jj<m-1; jj++)

q[ii][jj]=b[ii][jj];

}

}

}

max2=-100;

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

{

if ( j ! = r[1])

{

if (max2<nnn[j])

{ max 2= nnn[j];

t[2]=j;

}

}

}

cout << “t2=”<<t[2] << endl;

//erachap matrici dzevavorum

cout << “erachap matric” <<endl;

for (i=0; i<3; i++)

{

for (j=0; j<3; j++)

{

r1[i][j] = r[t[i]][t[j]];

cout << “ “ << r1[i][j];

}

cout << endl ;

}

for ( i=0; i<3; i++)

for (j=0; j<3; j++)

q[i][j]=r1[i][j];

for (k=0; k<3; k++)

{

for (ii=0; ii<3; ii++)

{

for (jj=0; jj<3; j++)

{

if (ii==kk&&jj==k)

b[ii][jj]=1/q[ii][jj];

if (ii==k&&jj ! k)

b[ii][jj]=-q[ii][jj]/ q[k][k];

if (ii ! = k&& jj !=k)

b[ii][jj]=q[ii][jj] – q[k][jj]\*q[ii][k]/q[k][k];

}

for (ii=0; ii<3; i++)

for (jj=0; jj<3; jj++)

q[ii][jj]=b[ii][jj];

}

P2=1-1/q[0][0];

F2=(P2-P1)\*(n-3)/(1-P2);

cout << “P2=”<<P2 <<endl;

cout <<”F2=”<<F2<<endl;

}

If (F2>Fax2)

{

for (i=0; i<nn; i++)

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

rn[i][j]=r[rk[i]][rk[j]];

for (t3=1; t3<m; t3++)

{

if (t3 ! = t[2] && t3 ! = t[1] )

{

for (i=0; i<m-2; i++)

for (j=0; j<m-2; j++)

q[i][j]=r2[i][j];

for (k=0; k<m-2; k++)

{

for (ii=0; ii<m-2; ii++)

for (jj=0; jj<m-2; jj++)

if ( ii==k &&jj==k)

b[ii][jj]=1/q[ii][jj]/q[k][k];

if (ii !=k&&jj !=k)

b[ii][jj]=q[ii][jj]-q[k][jj]\*q[ii][k]/q[k][k];

}

for (ii=0; ii<m-2; i++)

for (jj=0; jj<m-2; jj++)

q[ii][jj]=b[ii][jj];

}

for (t3=1; t3< m; t3++)

nnn[t3] = pow(q2[0][2], 2) / q3[0][0]\*q3[2][2]);

}

}

max3=0 ;

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

{

if (t3 ! = t[2] && t3 ! = t[1] )

{

if (max3< nnn[j] )

{

max3=nnn[j];

t[3]=j;

}

}

}

for (j=0; j<3; i++)

{

for (j=0; j<3; j++)

{

rr[i][j]=r[t[i]][t[j]];

cout <<” “<< rr[i][j];

}

cout << endl ;

}

for (i=0; i<4; i++)

for (j=0; j<4; j++)

q[i][j]=r2[i][j];

for (k=0; k<4; k++)

{

for (ii=0;ii<4; ii++)

for (jj=0; jj<4; jj++)

{

if (ii==k&&jj==k)

b[ii][jj]=1/q[ii][jj];

If (ii==k&&jj ! =k )

b[ii][jj]=-q[ii][jj]/q[k][k];

if( ii ! = k && jj !=k)

b[ii][jj] = q[ii][jj]-q[k][jj]\*q[ii][k]/q[k][k];

}

for (ii=0; ii<4;ii++)

for (jj=0; jj<4; jj++)

q[ii][jj]=b[ii][jj];

}

P3=1-1/q[0][0];

F3=(P3-P2)\*(n-4)/(1-P3);

cout << “P3=”<<P3<<endl;

cout <<”F3=”<<F3<<endl;

}

else

for ( i=0; i<nn; i++)

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

rn[i][j]=r[t[o]][t[j]];

if (F3>Fax3)

{

for (i=0; i<nn; i++)

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

rn[i][j]=r[t[i]] [t[j]];

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

{

if (j ! =t[1] && j !=t[2] && j !=t[3])

{

t[4]=j;

}

}

for ( i=0; i<3; i++)

{

for (j=0;j<3; j++)

{

rr[i][j]=t[t[i]] [t[j]];

cout <<” “<< rr[i][j];

}

cout<<endl;

}

for (i=0, i<m-4; i++)

for {j=0; j<m-4; j++)

q[i][j]=r3[i][j];

for (k=0; k<m-4; k++)

{

for (ii=0; ii<m-4; ii++)

for ( jj=0; jj<m-4; jj++)

{

if (ii==k&&jj==k)

b[ii][jj]=1/q[ii][jj];

if ( ii==k&&jj !=k)

b[ii][jj]=-q[ii][jj]/q[k][k];

if(ii!=k&&jj==k)

b[ii][jj]=q[ii][k]/q[k][k];

if (ii !=kk && jj ! =k)

b[ii][jj]=q[ii][jj]-q[k][jj]\*q[ii][k]/q[k][k];

}

for ( ii=0; ii<m-4; ii++)

for (jj=0; jj<m-4; jj++)

q[ii][jj]=b[ii][jj];

}

P4=1-1/q4[0][0];

F4=(P4-P3)\*(n-S)/(1-P4);

cout << “P4=”<<P4<<endl;

cout <<”F4=”<<F4<<endl;

}

else

for ( i=0; i<nn; i++)

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

rn[i][j]=r[t[i]][t[j]];

if (F4>Fax4)

{

for (i=0; i<nn; i++)

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

rn[i][j]=r[t[i]][t[j]];

}

else

for (i=0; i<nn; i++)

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

rn [i][j]=r[t[i]][t[j]];

system(“pause”);

}