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Online C++ Compiler.

Code, Compile, Run and Debug C++ program online.

Write your code in this editor and press "Run" button to compile and execute it.

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#include <iostream>

using namespace std;

int main()

{

cout<<"Implementing Gauss Jordan Method...................................";

cout<<endl<<"Enter equation coeffecients(ax+by+cz+d=0) form..............";

cout<<endl<<"Considering equation 1:";

double eq1[4],eq2[4],eq3[4],temp1[4],temp2[4],temp3[4];

cout<<endl<<"Coefficient for x:";

cin>>eq1[0];

cout<<endl<<"Coefficient for y:";

cin>>eq1[1];

cout<<endl<<"Coefficient for z:";

cin>>eq1[2];

cout<<endl<<"Value of constant:";

cin>>eq1[3];

cout<<endl<<"Considering equation 2:";

cout<<endl<<"Coefficient for x:";

cin>>eq2[0];

cout<<endl<<"Coefficient for y:";

cin>>eq2[1];

cout<<endl<<"Coefficient for z:";

cin>>eq2[2];

cout<<endl<<"Value of constant:";

cin>>eq2[3];

cout<<endl<<"Considering equation 3:";

cout<<endl<<"Coefficient for x:";

cin>>eq3[0];

cout<<endl<<"Coefficient for y:";

cin>>eq3[1];

cout<<endl<<"Coefficient for z:";

cin>>eq3[2];

cout<<endl<<"Value of constant:";

cin>>eq3[3];

cout<<endl<<"Eliminating x from equations..............";

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

{

temp1[i]=eq1[i];

temp2[i]=eq2[i];

temp3[i]=eq3[i];

}

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

{

temp3[i]=(temp3[i]-((temp1[i]\*eq3[0])/eq1[0]));

temp2[i]=(temp2[i]-((temp1[i]\*eq2[0])/eq1[0]));

}

cout<<endl<<"Value checking:";

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

{

cout<<endl<<"equation 1 with i="<<i<<" "<<temp1[i];

cout<<endl<<"equation 2 with i="<<i<<" "<<temp2[i];

cout<<endl<<"equation 3 with i="<<i<<" "<<temp3[i];

}

cout<<endl<<"Eliminating y from equations..............";

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

{

temp3[i]=(temp3[i]-((temp2[i]\*temp3[1])/temp2[1]));

temp1[i]=(temp1[i]-((temp2[i]\*eq1[1])/temp2[1]));

}

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

{

cout<<endl<<"equation 1 with i="<<i<<" "<<temp1[i];

cout<<endl<<"equation 2 with i="<<i<<" "<<temp2[i];

cout<<endl<<"equation 3 with i="<<i<<" "<<temp3[i];

}

double x,y,z;

cout<<endl<<"Substituting value of z..............";

z=-1\*(temp3[3]/temp3[2]);

y=-1\*((temp2[3]\*temp2[2]\*z)/temp2[1]);

x=-1\*((temp1[3]\*temp1[2]\*z)/temp1[0]);

cout<<endl<<"Value of x is:"<<x;

cout<<endl<<"Value of y is:"<<y;

cout<<endl<<"Value of z is:"<<z;

return 0;

}