**ARRAYS – One dimensional and Two dimensional**

Another way of solving a linear system is to use the elimination method. In the elimination method you either add or subtract the equations to get an equation in one variable.

When the coefficients of one variable are opposites you add the equations to eliminate a variable and when the coefficients of one variable are equal you subtract the equations to eliminate a variable.

**DIRECTIONS:**

Please complete the code and make it work by adding an appropriate code in the “add code” or “call to function” parts.

**Note:**

You are only required to write codes from the function definition. Thus, you are not allowed to make any modifications in the main function and on the function prototypes unless there is an “//add code here for……”.

**Please be guided accordingly. (Just make the code work, thank you!)**

/\*

Linear equation using elimination method

\*/

#include<iostream>

#include<iomanip>

#include<cmath>

using namespace std;

const int row=2;

const int col=3;

//function declaration

void equation1(int list[][col], int rsize);//to display the value in 2D array plus linear equation

void Elimination(int list1[][col], int rsize);//input the 2 values to elimate in eqn1 and eqn2

//then display the new equations that is already multiplied to the 2values

void final1(int list1[][col], int rsize,int Y);

//diplay the value of computed Y and the equation need to substitute the value of Y

//process and computes the value of X

//and finally, display the solution set of (x,y)

void final2(int list1[][col], int rsize,int X);

//diplay the value of computed X and the equation need to substitute the value of X

//process and computes the value of Y

//and finally, display the solution set of (x,y)

int deterY(int list2[3]);//computes the value of Y and returns the value of Y

int deterX(int list2[3]);//computes the value of X and returns the value of X

char choice();//display the menu and returns the value of choice

int main()

{

char opt;

opt=choice();

switch(opt)

{

case '1'://two dimensional

do{ system("cls");

cout<<"SYSTEMS OF LINEAR EQUATIONS:\n"

<<"Solving by addition or elimination\n";

//ADD CODE HERE

cout<<"This program uses Addition or Elimination Method."

<<endl

<<"We begin by setting up and evaluating the three variables x, y and the constant."

<<"\nFor example,\n 5x + y = -14 \nshould be entered as 5 1 -14";

cout<<"\n\nPress any key to continue....";

cin.ignore();

cin.get();

system("cls");

cout<<"Again, 5x + y = -14 should be entered as 5 1 -14";

//ADD CODE HERE

// Call function equation1 here

//Call function Elimination here

//ADD CODE HERE

break;

case '2':

//ADD CODE HERE

}//end switch

system("pause");

return 0;

}//end main

///////////////////////////////////////////////////////////

char choice()

{

//ADD CODE HERE

}//end choice

///////////////////////////////////////////////////////////////

void equation1(int list[][col], int rsize)

{

//ADD CODE HERE

}//end equation1

//////////////////////////////////////////////////////////////////////////////////////////////////////////////

void Elimination(int list1[][col], int rsize)

{

//ADD CODE HERE

cout<<endl;

}

////////////////////////////////////////////////////

int deterY(int list2[3])

{

//ADD CODE HERE

}

///////////////////////////////////////////////

int deterX(int list2[3])

{

//ADD CODE HERE

}

///////////////////////////////////////////////////////

void final1(int list1[][col], int rsize,int Y)

{

//ADD CODE HERE

}

////////////////////////////////////////////////////////////////////////////

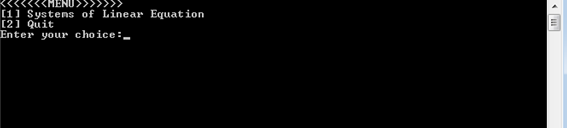
void final2(int list1[][col], int rsize,int X)

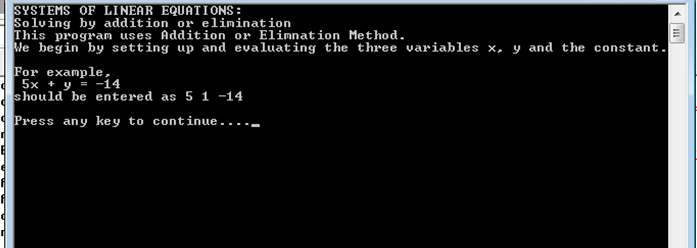
{

//ADD CODE HERE

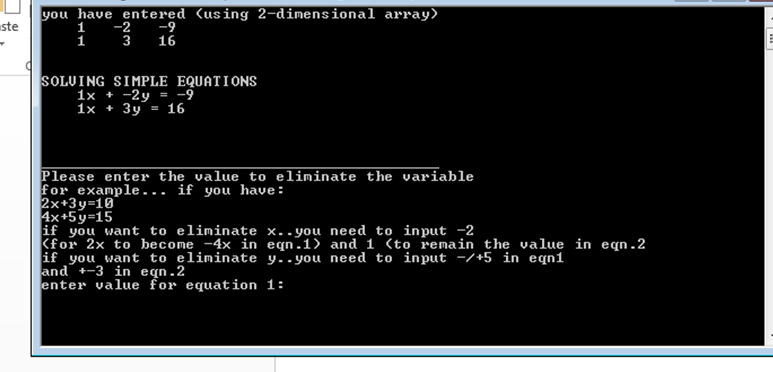
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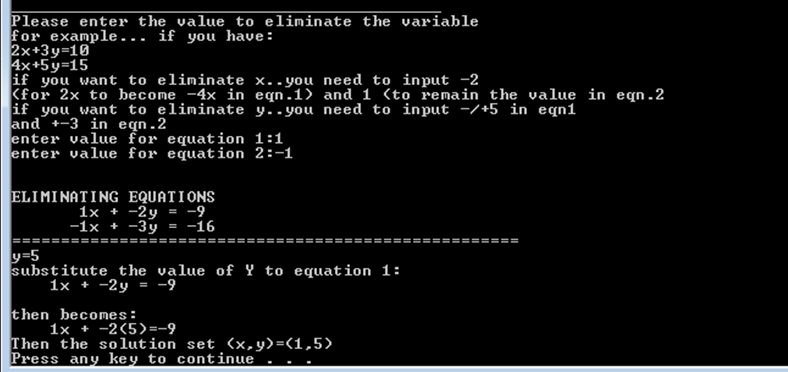
**Sample Print Screen:**

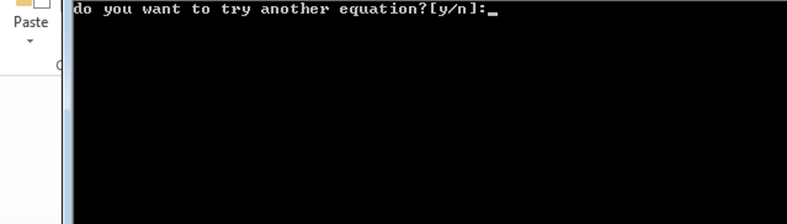
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