/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Programming excercise 73002 \*

\* Maxwell Stephens \*

\* 12:30 TTh \*

\* 73002, 2/21/17 \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

/\*

This is a program to find a solution to the following cryptarithmetic puzzle :

TOO + TOO + TOO + TOO = GOOD

The equation is satisfied if (1000 \* G) - (400 \* T) + (66 \* O) + D = 0.

\*/

#include <iostream>

using namespace std;

int main()

{

//declare vars

int T, O, G, D;

//for loops, many nested to go through each letter until the equation, or proof, provided in the else if statement is correct

for (T = 0; T <= 9; T++)

{

for (O = 0; O <= 9; O++)

{

for (G = 0; G <= 9; G++)

{

for (D = 0; D <= 9; D++)

{

//if d==g or d==o ect if any one of these is true then continue

if ((D == G) || (D == O) || (D == T) || (G == O) || (G == T) || (O == T))

continue;

//else if to find the solution, if all these ae true you know the cypher is correct. Really interesting code here.

else if (400 \* T + 40 \* O + 4 \* O == 1000 \* G + 100 \* O + 10 \* O + D)

{

cout << "T = " << T << endl

<< "O = " << O << endl

<< "G = " << G << endl

<< "D = " << D << endl;

break;

}

}

}

}

}

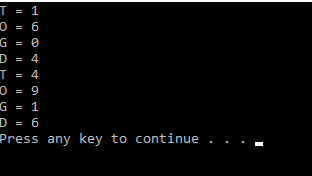
system("pause");

return 0;

}

/\*

SAMPLE OUTPUT:



Self-Evaluation:

4: Works perfectly, code properly documented

I believe I earned 4 points.

\*/