#include <iostream>

#include <string>

using namespace std;

double simpleCalc(string str);

double termCalc(string str);

int string\_To\_Int(string str);

int main(){

string tmp = "";

/\*cout is the printing method in c++, i think it is printf in c, use it if necessary\*/

cout<< "Enter the equation u want : ";

/\*note tmp here is ( string ) not int

takes the full equation without separators

like 12+15/23\*11-5\*3+9\*/

cin >> tmp;

cout<< endl << endl << simpleCalc(tmp);

return 0;

}

/\*takes the full equation in string

extracting the terms, calcutes each term, sum or substract according to the lastOperator

example: 12+15/23\*11-5\*3+9 = 13.173\*/

double simpleCalc(string str){

char lastOperator = '+';

string tmp = "";

double result = 0.0;

for(int i = 0 ; i < str.length(); i ++ ){

if(str[i] != '+' && str[i] != '-')

tmp += str[i];

else{

if(lastOperator == '+')

result += termCalc(tmp);

else if(lastOperator == '-')

result -= termCalc(tmp);

lastOperator = str[i];

tmp = "";

}

}

if(lastOperator == '+')

result += termCalc(tmp);

else if(lastOperator == '-')

result -= termCalc(tmp);

return result;

}

/\*this methods takes a term, this term may contain (\*) or (/) operators and calculates it

example: 15/23\*11 = 7.17391\*/

double termCalc(string str){

char lastOperator = '\*';

string tmp = "";

double result = 1.0;

for(int i = 0;i<str.length();i++){

if(str[i] != '\*' && str[i] != '/'){

tmp += str[i];

}else{

if(lastOperator == '\*')

result \*= string\_To\_Int(tmp);

else if(lastOperator == '/')

result /= string\_To\_Int(tmp);

lastOperator = str[i];

tmp = "";

}

}

/\* for the last term (if exist) like 12\*11/13\*15 \*/

if(lastOperator == '\*')

result \*= string\_To\_Int(tmp);

else if(lastOperator == '/')

result /= string\_To\_Int(tmp);

return result;

}

/\*takes an string conatains an integer number converting it to int

example: "123" = 123 \*/

int string\_To\_Int(string str){

int multiplier = 1;

int result = 0;

for(int i=str.length()-1;i>=0;i--){

result += (str[i]-48)\*multiplier;

multiplier \*= 10;

}

return result;

}