**Lab 3**

**1*.***  *Write a program to display the following output using a single cout statement*.

i. Maths = 90

ii. Physics = 77

iii. Chemistry = 69

#include<iostream>

#include<conio.h>

using namespace std;

int main()

{

int m=90,p=77,c=69;

cout<<m<<endl<<p<<endl<<c;

getch();

}

**2.** *Write a program to input an integer value from keyboard and display on screen “WELL DONE” that many times*

#include<iostream>

#include<conio.h>

using namespace std;

int main()

{

int x;

cin>>x;

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

cout<<"WELL DONE"<<endl;

getch();

}

**3.**  *Write a program to read the values of a, b and c and display the value of x, where x= a/b-c and test your program for the following values:*

*i. a =250, b=85, c=25*

*ii. a=300, b=70, c=70*

#include<iostream>

#include<conio.h>

using namespace std;

int main()

{

int a,b,c;

float x;

cin>>a>>b>>c;

x=a/b-c;

cout<<x<<endl;

getch();

}

**4*.*** *Write a function that returns the minimum and the maximum value in an array of integers. Inputs to the function are the array of integers, an integer variable containing the length of the array and pointers to integer variables that will contain the minimum and the maximum values. The function prototype is:*

*void minmax( int array[], int length, int& min, int & max);*

#include<iostream>

#include<malloc.h>

#include<conio.h>

using namespace std;

void minmax(int a[],int l,int \*min,int \*max)

{

int i;

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

{

if(a[i]<\*min)

\*min=a[i];

if(a[i]>\*max)

\*max=a[i];

}

}

int main()

{

int n,min,max,i;

cin>>n;

int \*a=(int \*)malloc(n\*sizeof(int));

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

cin>>a[i];

min=a[0];

max=a[n-1];

minmax(a,n,&min,&max);

cout<<min<<endl<<max;

free(a);

getch();

}

**5.** *Create a four-function calculator for fractions. Here are the formulas for the four arithmetic operations applied to fractions:*

*Addition: a/b + c/d = (a\*d + b\*c) / (b\*d)*

*Subtraction: a/b - c/d = (a\*d - b\*c) / (b\*d)*

*Multiplication: a/b \* c/d = (a\*c) / (b\*d)*

*Division: a/b / c/d = (a\*d) / (b\*c)*

*The user should type the first fraction, an operator, and a second fraction. The program should then display the result and ask whether the user wants to continue.*

#include<iostream>

#include<conio.h>

using namespace std;

int main()

{

int a,b,c,d;

char ch;

cin>>a>>b>>c>>d>>ch;

switch(ch)

{

case '+':

cout<<(float)(a\*d+b\*c)/(b\*d);

break;

case '-':

cout<<(float)(a\*d-b\*c)/(b\*d);

break;

case '\*':

cout<<(float)(a\*c)/(b\*d);

break;

case '/':

cout<<(float)(a\*d)/(b\*c);

break;

default:cout<<"Wrong choice";

}

getch();

}