**// FAISAL RASOOL QAZI**

**// 455689**

**// ME-15**

**// SECTION-B**

**//FOP LAB TASKS 01**

**//PROJECT 1**

#include <iostream>

using namespace std;

int main(){

int number=6,fact=1; //defining variables

for(int i=number; i>=1; i--) //applying for loop

{fact=fact\*i; //applying formula

}

cout<<fact; //taking output

}

**//PROJECT 2**

#include <cmath>

int main(){

float d,x1,y1,x2,y2; //defining variables

cout<<"x1=" ; // taking input value of x1

cin>>x1;

cout<<"x2="; //taking input value of x2

cin>>x2;

cout<<"y1="; //taking input value of y1

cin>>y1;

cout<<"y2="; //taking input value of y2

cin>>y2;

d=sqrt(pow((x2-x1),2)=pow((y2-y1),2)); //applying formula for distance between 2 points

cout<<"DISTANCE="<<d; //getting results

}

**//PROJECT 3**

float length,cm,metre,km; //defining variables

int main(){

cout<<"length in cm="; //giving output

cin>>cm;

metre=cm/100; //converting metre into cm

km=cm\*100000 //converting km into cm

cout<<"length in metre="<<metre<<endl<<"length in km="<<km; //getting esults in merte and km

}

**//PROJECT 4**

float a,b,P; //defining variables

int main (){

cout<<"ENTER THE VALUE OF a AND b= "<<endl; //giving output

cin>>a>>b;

P=(a\*a)+(2\*a\*b)+(b\*b); //applying formula for polynomial

cout<<P; //getting results

}