

ABDUL MOIZ AKRAM
REG NO 455987
ME-15-C

(HOME TASK #1)

```
#include <iostream>
using namespace std;
int main() {
    int x1, x2, y1, y2, x_value,
        y_value, result;
    cout<<"Enter the 'x' co-ordinates of the points: \n";
    cin>>x1;
    cin>>x2;
    x_value=(x2-x1)*(x2-x1);
    cout<<"Enter the 'y' co-ordinates of the points: \n";
    cin>>y1;
    cin>>y2;
    y_value=(y2-y1)*(y2-y1);
    result=x_value+y_value;
    cout<<"The distance between the points is:"<<result;
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter the 'x' co-ordinates of the points:
1
2
Enter the 'y' co-ordinates of the points:
2
1
The distance between the points is:2
Process finished with exit code 0
```

```
(HOME TASK #2)
#include <iostream>
using namespace std;
int main() {
    float lincm, linm, linkm;
    cout<<"Enter the length in centimeter: ";
    cin>>lincm;
    cout<<"The length in meters is:"<<lincm/100<<endl;
    cout<<"The length in kilometers is:"<<lincm/100000<<endl;
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter the length in centimeter:10
    The length in meters is:0.1
The length in kilometers is:0.0001

Process finished with exit code 0
```

```
(HOME TASK #3)
#include <iostream>
using namespace std;
int main() {
    int a, b, result;
    cout<<"Enter the numbers 'a' and 'b': ";
    cin>>a;
    cin>>b;
    result=(a*a)+(2*a*b)+(b*b);
    cout<<"The answer is: "<<result;
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter the numbers 'a' and 'b':
3
5
The answer is: 64
Process finished with exit code 0
```

```
(HOME TASK #4)
#include <iostream>
using namespace std;
int main() {
    float temp_in_fahrenheit,temp_in_celsius;
    cout<<"Enter the temperature in fahrenheit: ";
    cin>>temp_in_fahrenheit;
    temp_in_celsius=((temp_in_fahrenheit-32)*5)/9;
    cout<<"The temperature in celsius is: "<<temp_in_celsius;
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter the temperature in fahrenheit:104
    The temperature in celsius is: 40
Process finished with exit code 0
```

```
(LAB TASK #1)

#include <iostream>
using namespace std;
int main() {
    int age;
    cout<<"Enter your age: ";
    cin>>age;
    if (age<18){
        cout<<"You are not eligible for vote!";
    }
    else{
        cout<<"You are eligible for vote!";
    }
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter your age:
19
    You are eligible for vote!
Process finished with exit code 0
```

```
(LAB TASK #2)
#include <iostream>
using namespace std;
int main() {
    int num;
    cout<<"Enter the number: ";
    cin>>num;
    if(num>10 and num<50){
        cout<<"The number is in the range!";
    }
    else{
        cout<<"The number is outside the range!";
    }
    return 0;
}
```

```
C:\Users\De11\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter the number: 12
The number is in the range!
Process finished with exit code 0
|
```

```
(LAB TASK #3)
#include <iostream>
using namespace std;
int main() {
    int num1, num2, larger;
    cout<<"Enter 2 numbers: ";
    cin>>num1;
    cin>>num2;
    if (num1>num2){
        cout<<"The greater number is:"<<num1;
    } else{
        cout<<"The greater number is:"<<num2;
    }
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter 2 numbers: 69
98
The greater number is:98
Process finished with exit code 0
|
```

```
(LAB TASK #4)
#include <iostream>
using namespace std;
int main() {
    int marks1, marks2, marks3, avg;
    cout<<"Enter marks of three subjects: ";
    cin>>marks1;
    cin>>marks2;
    cin>>marks3;
    avg=(marks1+marks2+marks3)/3;
    if (avg>=60){
        cout<<"You have passed!";
    }
    else{
        cout<<"You have failed!";
    }
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter marks of three subjects:70
88
96
    You have passed!
Process finished with exit code 0
```



```
(HOME TASK #1)
#include <iostream>
using namespace std;
int main() {
    int marks;
    cout<<"Enter your marks: ";
    cin>>marks;
    if (marks>90 and marks<=100){
        cout<<"A grade!";
    }
    else if (marks>75 and marks<=90) {
        cout<<"B grade!";
    }
    else if (marks>60 and marks<=75) {
        cout << "C grade!";
    }
    else if (marks>45 and marks<=60) {
        cout << "D grade!";
    }
    else if (marks>=0 and marks<=45) {
        cout << "F grade!";
    }
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter your marks:97
A grade!
Process finished with exit code 0
|
```

```
(HOME TASK #2)
#include <iostream>
using namespace std;
int main() {
    int num;
    cout<<"Enter a number: ";
    cin>>num;
    if (num%2==0 and num%5==0){
        cout<<"This number is valid";
    } else{
        cout<<"This number is not valid";
    }
    return 0;
}
```

C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe

Enter a number:89

This number is not valid

Process finished with exit code 0

|

```
(HOME TASK #3)
#include <iostream>
using namespace std;
int main() {
    int year;
    cout<<"Enter the year: ";
    cin>>year;
    if (year%4==0){
        cout<<"This is a leap year!";
    } else{
        cout<<"This is not a leap year";
    }
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter the year:2024
    This is a leap year!
Process finished with exit code 0
|
```

```
(HOME TASK #4)
#include <iostream>
using namespace std;
int main() {
    float attendance, gpa;
    cout<<"Enter your GPA and attendance respectively: ";
    cin>>gpa;
    cin>>attendance;
    if(gpa>=3.5 and attendance>=80){
        cout<<"You are eligible for scholarship!";
    } else{
        cout<<"You are not eligible for scholarship!";
    }
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
```

```
Enter your GPA and attendance respectively:3.6
```

```
83
```

```
You are eligible for scholarship!
```

```
Process finished with exit code 0
```

```
|
```

```
(HOME TASK #5)
#include <iostream>
using namespace std;
int main() {
    char letter;
    cout<<"Enter a letter: ";
    cin>>letter;
    if (letter=='a' or letter=='e' or
        letter=='i' or letter=='o' or
        letter=='u'){
        cout<<"letter is a vowel";
    } else{
        cout<<"letter is not a vowel";
    }
    return 0;
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter a letter:i
    The letter is a vowel
Process finished with exit code 0
|
```