

HOME TASK 01

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ME-15-C

Q1

```
#include <iostream>

using namespace std;

int main() {

    int x1, x2, y1, y2, x_value, y_value, result;

    cout << "provide 'x' co-ordinates of the points"<<endl;

    cin >> x1;

    cin >> x2;

    x_value = (x2 - x1) * (x2 - x1);

    cout << "provide 'y' co-ordinates of the points"<<endl;

    cin >> y1;

    cin >> y2;

    y_value = (y2 - y1) * (y2 - y1);

    result = x_value + y_value;

    cout << "distance b/w points is:" << result;

    return 0;

}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
provide 'x' co-ordinates of the points
5
6
provide 'y' co-ordinates of the points
7
4
distance b/w points is:10
Process finished with exit code 0
```

Q 2

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    float cm, m, km;
```

```
    cout<<"Enter the length in cm: ";
```

```
    cin>>cm;
```

```
    cout<<"The length in metre is:"<<cm/100<<endl;
```

```
    cout<<"The length in km is:"<<cm/100000<<endl;
```

```
    return 0;
```

```
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter the length in cm:57
The length in metre is:0.57
The length in km is:0.00057

Process finished with exit code 0
```

Q 3

```
#include <iostream>

using namespace std;

int main() {

    int num1, num2, result;

    cout<<"Enter the numbers 'num1' and 'num2': ";

    cin>>num1;

    cin>>num2;

    result=(num1*num1)+(2*num1*num2)+(num2*num2);

    cout<<"ans is: "<<result;

    return 0;

}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter the numbers 'num1' and 'num2':6
4
ans is: 100
Process finished with exit code 0
```

Q 4

```
#include <iostream>

using namespace std;

int main() {

    float temp_in_fahrenheit, temp_in_celsius;

    cout<<"Enter the T in F: ";

    cin>>temp_in_fahrenheit;

    temp_in_celsius=((temp_in_fahrenheit-32)*5)/9;

    cout<<"The T in C is: "<<temp_in_celsius;

    return 0;

}
```

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

```
Enter the T in F:104
```

```
    The T in C is: 40
```

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

HOME TASK 02

Q 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!";

    }

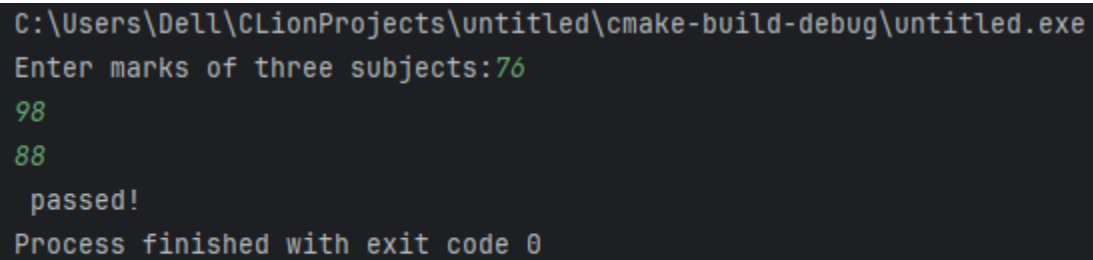
    else if (marks>=0 and marks<=45) {

        cout << "F grade!";

    }

}
```

```
    return 0;
}
```

A screenshot of a terminal window with a dark background. The text is as follows:

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter marks of three subjects:76
98
88
    passed!
Process finished with exit code 0
```

Q 2

```
#include <iostream>

using namespace std;

int main() {

    int a;

    cout<<"Enter a number: ";

    cin>>a;

    if (a%2==0 and a%5==0){

        cout<<"This number is valid";

    } else{

        cout<<"This number is invalid";

    }

    return 0;
```

```
}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter a number:87
This number is invalid
Process finished with exit code 0
|
```

Q 3

```
#include <iostream>

using namespace std;

int main() {

    int year;

    cout << "Enter any year: ";

    cin >> year;

    if (year % 4 == 0) {

        cout << "its is a leap year!";

    } else {

        cout << "its is not a leap year";

    }

}
```



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

Q 4

```
#include <iostream>

using namespace std;

int main() {

    float attendance, gpa;

    cout<<"Enter your GPA and attendance : ";

    cin>>gpa;

    cin>>attendance;

    if(gpa>=3.5 and attendance>=75){

        cout<<"eligible for scholarship!";

    } else{

        cout<<"eligible for scholarship!";

    }

    return 0;

}
```

```
C:\Users\Dell\CLionProjects\untitled\cmake-build-debug\untitled.exe
Enter your GPA and attendance :3.1
76
    eligible for scholarship!
Process finished with exit code 0
```

Q 5

```
#include <iostream>

using namespace std;

int main() {

    char alphabet;

    cout<<"Enter a alphabet: ";

    cin>>alphabet;

    if (alphabet=='a' or alphabet=='e' or alphabet=='i' or alphabet=='o' or alphabet=='u'){

        cout<<"The alphabet is a vowel";

    } else{

        cout<<"The alphabet is not a vowel";

    }

    return 0;

}
```

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

```
Enter a alphabet:o
```

```
    The alphabet is a vowel
```

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