

## Paper : PROGRAMMING FUNDAMENTALS (LAB)

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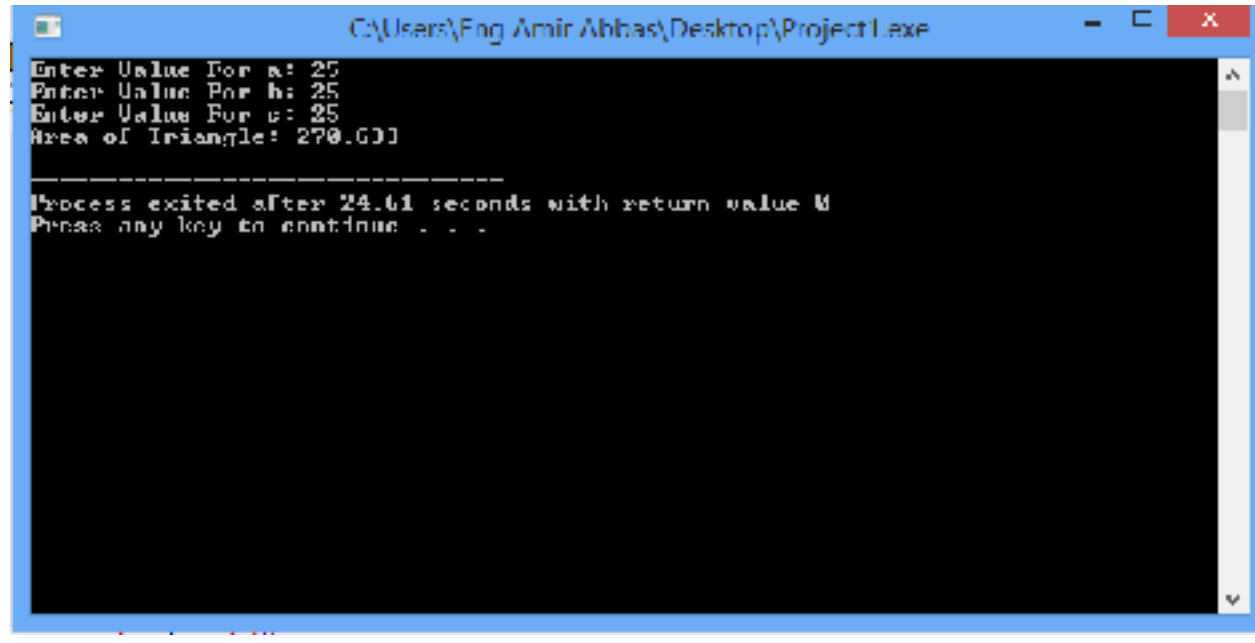
ANS:1

Coding:

```
#include <iostream>
#include <math.h>
using namespace std;
int main()
{
    float a, b, c, s, area;
    cout << "Enter Value For a: ";
    cin >> a;
    cout << "Enter Value For b: ";
    cin >> b;
    cout << "Enter Value For c: ";
    cin >> c;
    s = (a+b+c)/2;
    area = sqrt(s*(s-a)*(s-b)*(s-c));
    cout << "Area of Triangle: " << area << endl;
```

```
return 0;  
}
```

Result:



```
C:\Users\Fog Amir Abbas\Desktop\Project1.exe  
Enter Value For a: 25  
Enter Value For h: 25  
Enter Value For s: 25  
Area of Iriangle: 270.633  
-----  
Process exited after 24.61 seconds with return value 0  
Press any key to continue . . .
```

P.T.O

**ANS:2**

**Coding:**

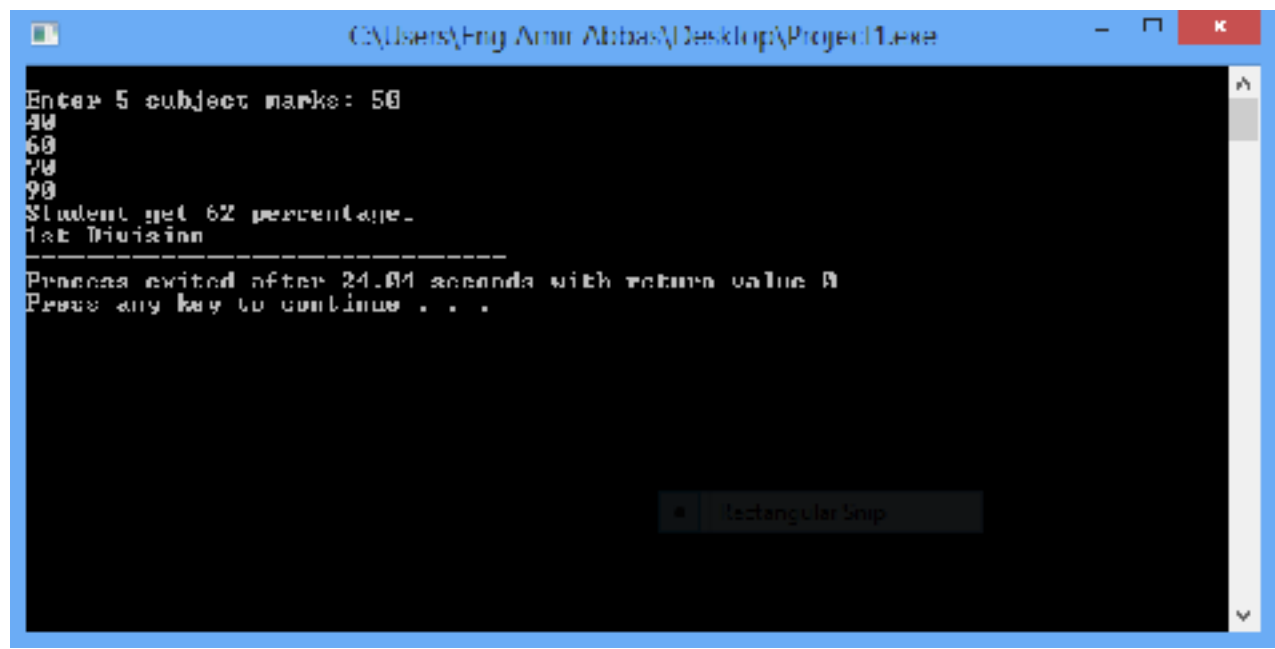
```
#include <iostream>

using namespace std;

int main()
{
    float m1, m2, m3, m4, m5, avg, per;
    cout << "\nEnter 5 subject marks: ";
    cin >> m1;
    cin >> m2;
    cin >> m3;
    cin >> m4;
    cin >> m5;
    per = (m1 + m2 + m3 + m4 + m5) * 100 / 500;
    cout << "Student get " << per << " percentage. \n";
    if (per >= 60)
        cout << "1st Division";
    else if (per >= 50 && per <= 59)
        cout << "2nd Division";
    else if (per >= 40 && per <= 49)
        cout << "3rd Division";
    else if (per < 40)
```

```
        cout << "Fail";  
  
    return 0;  
}
```

### Result:



```
C:\Users\Fng Amir Abbas\Desktop\Project1.exe  
Enter 5 subject marks: 50  
40  
60  
70  
90  
Student get 62 percentage.  
1st Division  
-----  
Process exited after 24.04 seconds with return value 0  
Press any key to continue . . .
```

P.T.O

**ANS:3**

**Coding:**

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int y,f,i;
```

```
    cout<<"Enter Inches to Convert ::";
```

```
    cin>>i;
```

```
    y=i/432;
```

```
    i=i%432;
```

```
    f=i/12;
```

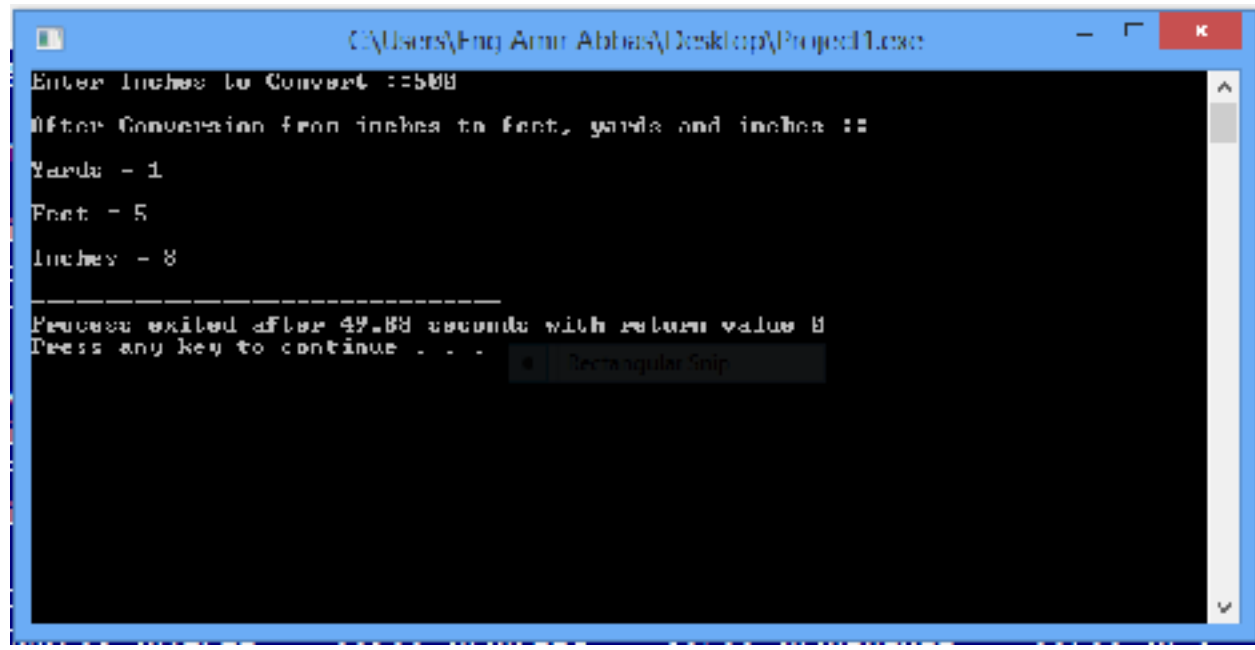
```
    i=i%12;
```

```
    cout<<"\nAfter Conversion from inches to feet, yards and inches :: \n";
```

```
    cout<<"\nYards = "<<y<<"\n\nFeet = "<<f<<"\n\nInches = "<<i<<"\n";
```

```
    return 0;
```

```
}
```

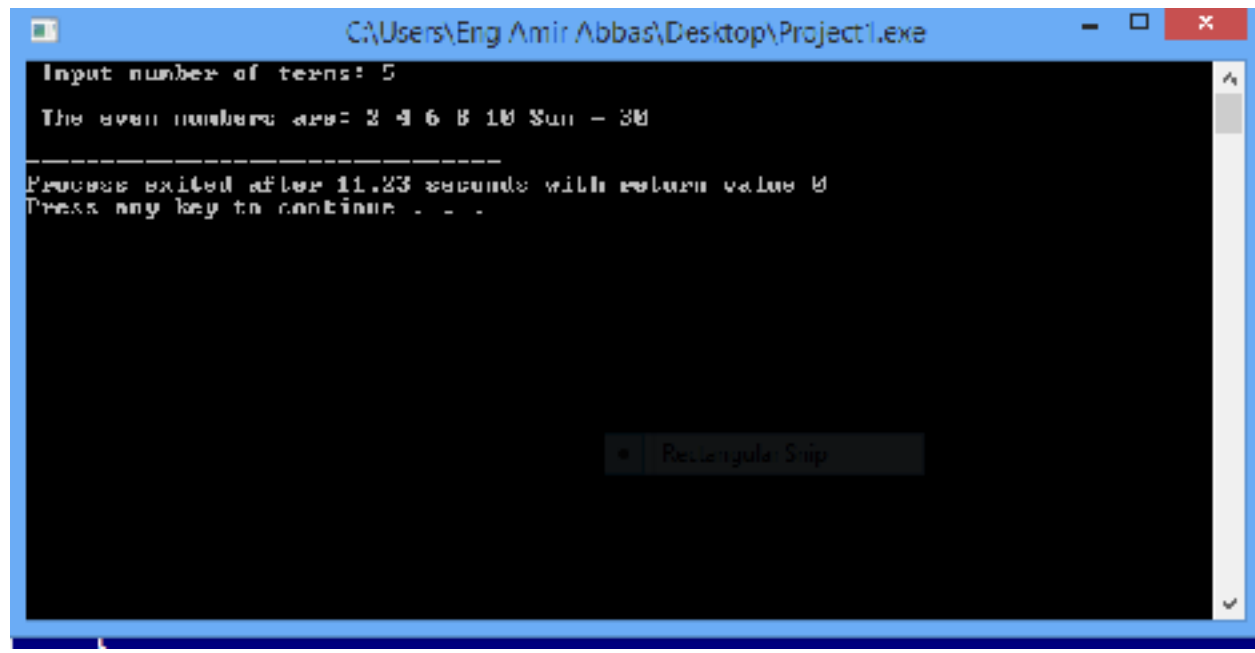
**Result:**

```
C:\Users\Fng Amir Abbas\Desktop\Project 1.exe
Enter Inches to Convert ::500
After Conversion from inches to feet, yards and inches ::
Yards - 1
Feet - 5
Inches - 8
-----
Process exited after 49.88 seconds with return value 0
Press any key to continue . . .
```

**ANS:4****Coding:**

```
#include <iostream>
using namespace std;
int main()
{
    int i, n, sum = 0;
    cout << " Input number of terms: ";
    cin >> n;
    cout << "\n The even numbers are: ";
```

```
for (i = 1; i <= n; i++)
{
    cout << 2 * i << " ";
    sum += 2 * i;
}
cout << "Sum = " << sum << endl;
}
```

**Result:**

The screenshot shows a Windows command prompt window titled "C:\Users\Eng Amir Abbas\Desktop\Project1.exe". The output of the program is as follows:

```
Input number of terms: 5
The even numbers are: 2 4 6 8 10 Sum = 30
-----
Process exited after 11.23 seconds with return value 0
Press any key to continue . . .
```

A "Rectangular Strip" watermark is visible in the bottom center of the screenshot.

P.T.O

**ANS:5**

**Coding:**

```
#include<iostream>

using namespace std;

int main()
{
    int hour_worked, hour_rate,gross_pay,tax,net_pay;

    cout<<"Enter hour rate";

    cin>>hour_rate;

    cout<<"Enter hour worked";

    cin>>hour_worked;

    gross_pay = hour_worked*hour_rate;

    tax = 0.1*gross_pay;

    net_pay = gross_pay-tax;

    cout<<"gross_pay is "<<gross_pay<<endl;

    cout<<"tax is "<<tax<<endl;

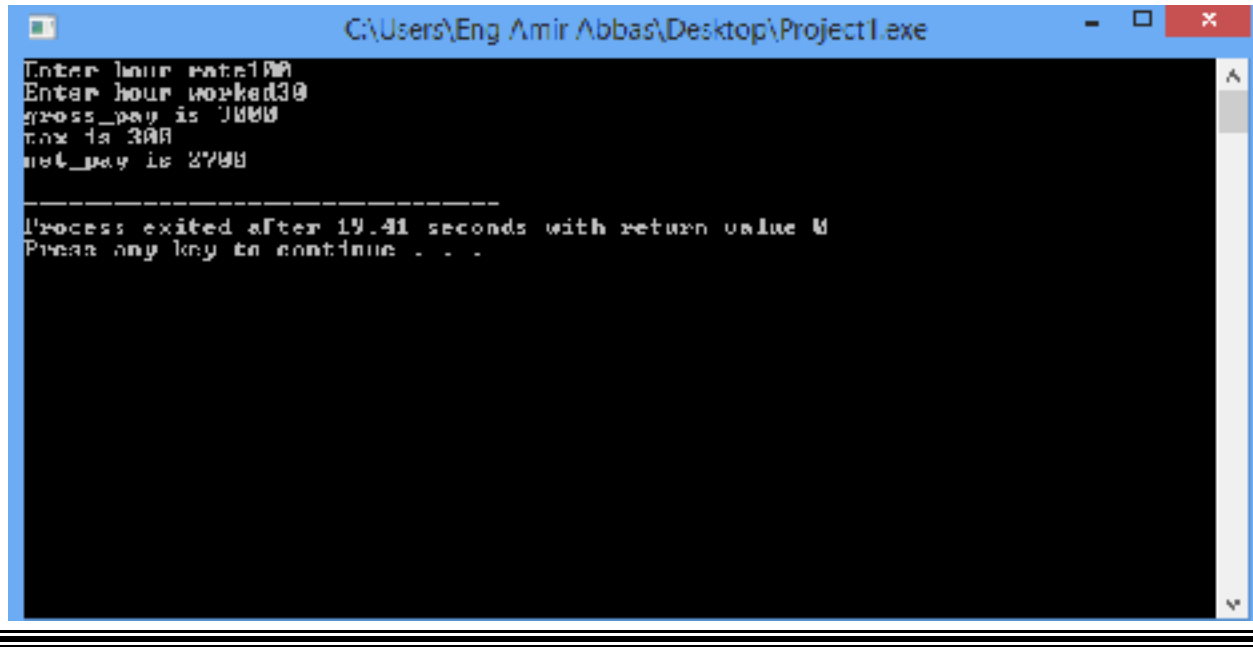
    cout<<"net_pay is "<<net_pay<<endl;

    return 0;

}
```

**Result:**





```
C:\Users\Eng Amir Abbas\Desktop\Project1.exe
Enter hour rate:100
Enter hour worked:30
gross_pay is 3000
tax is 300
net_pay is 2700

-----
Process exited after 19.41 seconds with return value 0
Press any key to continue . . .
```