

NAME	MUHAMMAD JUNAID
ID#	16027
SECTION	A
DEP...	BS (SE)
LAB	PROGRAMMING FUNDAMENTAL

INSTRUCTOR

DR FAZAL E MALIK

Q1

Read A, B and C representing the three sides of a triangle. Write a program to find out its area the formula is given below:

ANS

```
1 #include<iostream>
2 #include<conio.h>
3 #include<math.h>
4 using namespace std;
5 int main(){
6
7     printf("MUHAMMAD JUNAID ID 16027\n");
8
9
10    float a,b,c,s,area;
11    cout<<"Enter three sides of triangle:";
12    cin>>a>>b>>c;
13    s = (a+b+c)/2;
14    area = sqrt(s*(s-a)*(s-b)*(s-c));
15    cout<<"Area : "<<area<<endl;
16    return 0;
17 }
```

```
MUHAMMAD JUNAID ID 16027
Enter three sides of triangle:10
8
10
Area : 36.6606
-----
Process exited after 17.52 seconds with return value 0
Press any key to continue . . .
```

Q2

Write a C++ program to get marks obtained by a student in percentage **P** and then find the division according to the below rules:

- If Percentage P is above or equal to 60 then display.....1st Division.
- If Percentage P is between 50 & 59 then display.....2nd Division.
- If Percentage P is between 40 & 49 then display.....3rd Division.

If Percentage P is less than 40 then display.....Fail.

ANS

```
1 #include<iostream>
2 #include<conio.h>
3 #include<math.h>
4 using namespace std;
5 int main(){
6
7     printf("MUHAMMAD JUNAID ID 16027\n");
8
9     int m1 , m2 , m3 ;
10    int total = 300;
11    int obt ;
12    int per;
13
14    cout<<"Enter 1st Subject Marks"<<endl;
15    cin>>m1;
16    cout<<"Enter 2nd Subject Marks"<<endl;
17    cin>>m2;
18    cout<<"Enter 3rd Subject Marks"<<endl;
19    cin>>m3;
20
21
22    obt = m1 + m2 + m3 ;
23    cout<<"The Total Marks:"<<obt<<endl;
24
25
26
27    per = (obt * 100 ) / total;
28    cout<<"The Percentage:"<<per<<endl;
29
30    if(per>=60){
31        cout<<"1st Div";
32    }
33    else if (per>50 && per<60){
34        cout<<"2nd Div";
35    }
36    else if (per>40 && per<50){
37        cout<<"3rd Div";
38    }
39    else if (per<40){
40        cout<<"Fail";
41    }
42
43
44 }
```

MUHAMMAD JUNAID ID 16027
Enter 1st Subject Marks
100
Enter 2nd Subject Marks
30
Enter 3rd Subject Marks
70
The Total Marks:200
The Percentage:66
1st Div

Process exited after 4.988 seconds with return value 0
Press any key to continue . . .

Q3

Write a C++ program to convert 5 feet to the equivalent number of (a) Inches (b) Yards. Where 1foot =12 Inches and 1 yard=3 feet)

ANS

```
1 #include<iostream>
2 #include<conio.h>
3 #include<math.h>
4 using namespace std;
5 int main(){
6
7     printf("MUHAMMAD JUNAID ID 16027\n");
8
9     int j=10 , s;
10    float d;
11
12    s=j*12;
13    d=j/3.00;
14
15    cout<<"5 Feet in inches is:";
16    cout<<s<<endl;
17
18    cout<<"5 Feet in yards is:";
19    cout<<d;
20
21 }
```

```
MUHAMMAD JUNAID ID 16027
5 Feet in inches is:120
5 Feet in yards is:3.33333
-----
Process exited after 0.1225 seconds with return value 0
Press any key to continue . . .
```

Q4

Write a C++ program to find the sum of the following series: **2+4+6+8+10?**

ANS

```
1 #include<iostream>
2 #include<conio.h>
3 #include<math.h>
4 using namespace std;
5 int main(){
6
7     printf("MUHAMMAD JUNAID ID 16027\n");
8
9     int sum = 0;
10    for(int i=2 ; i<=10 ; i+=2){
11
12        sum=sum+i;
13    }
14    cout<<"The Sum Of series 2,4,6,10 is:"<<sum;
15 }
```

```
MUHAMMAD JUNAID ID 16027
The Sum Of series 2,4,6,10 is:30
-----
Process exited after 0.1183 seconds with return value 0
Press any key to continue . . .
```

Q5

Write a C++ program to input Hours Worked and Hour Rate of an Employee. Calculate and display the Gross-Pay, Tax and Net-Pay; where

Gross-Pay=Hour-Worked*Hour-Rate

Tax=10% of Gross-Pay

Net-Pay=Gross-Pay – Tax

ANS

```
1 #include<iostream>
2 #include<conio.h>
3 #include<math.h>
4 using namespace std;
5 int main(){
6
7
8     printf("MUHAMMAD JUNAID ID 16027\n");
9
10    float gp, tex, np, th , hr;
11    tex=10;
12    cout<<"total work hour \t";
13    cin>>th;
14    cout<<"hour rate \t";
15    cin>>hr;
16    gp=th * hr ;
17    np=gp-tex;
18
19    cout<<"gross salary = "<< np;
20    system("pause");
21
22
23
24 }
```

```
MUHAMMAD JUNAID ID 16027
total work hour      10
hour rate           8
gross salary = 70Press any key to continue . . .
```