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 **Programming Fundamental Lab**

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| **Q. 1** | **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**$$Area=\sqrt{S(S-A)(S-B)(S-C)}$$**Where S=** $\frac{A+B+C}{2}$ |

**Ans:**

#include <iostream>

using namespace std ;

int main() {

 int A;

 int B;

 int c;

 int s;

 int a;

 cout << "Please enter A: \n";

 cin>> A;

 cout << "Please enter B: \n";

 cin>> B;

 cout << "Please enter C: \n";

 cin>> c;

 s=(A+B+c)/2;

 a=sqrt(s\*(s-A)\*(s-B)\*(s-c));

 cout<< a ;

 }

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| **Q. 2** | **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.**
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**Ans:**

#include <iostream>

using namespace std ;

int main() {

 int a;

 cout << "enter percentage: ";

 cin>> a;

 if(a>60)

 cout<< "1st division";

 else if(a>50)

 cout<< "2nd division" ;

 else if(a>40)

 cout<<"3rd division";

 else

 cout << "fail";

}

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| **Q. 3** | **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** | #include<iostream>using namespace std;int main(){ int feet=5; //Accpet Feet from user cout<<"Enter Feet:"; cin>>feet; //Convert feet to inches int inches=feet\*12; cout<<"Equivalent Inches are "<<inches<<endl; //convert feet to yard int yard=feet\*3; cout<<"Equivalent Yards are "<<yard<<endl;}**Q 4 Write a C++ program to find the sum of the following series:** **2+4+6+8+10****Ans:**  #include <iostream> using namespace std ;int main() { cout<< 2+4+6+8+10; return 0;}**Q 5 Write a C++ program to input Hours Worked and Hour Rate of an Employee. Calculate and display the Grsoss pay,Tax and Net pay,where** **Gross-Pay=Hour-Worked\*Hour-Rate****Tax=10% of Gross-Pay** **Net-Pay=Gross-Pay - Tax****Ans:** #include<iostream>#include<conio.h>main(){ int hours, payrate, grosspay; cout<<"How many hours did you work? "; cin>>hours); cout<<"How much do you get paid per hour? "; cin>>payrate; grosspay = hours\*payrate; cout<<"your gross pay is \n", grosspay;  system("pause");} |