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Programming Fundamental

Q.1.a:

Ans:

```
#include <algorithm>
#include <iostream>
using namespace std;
int main ()
{
int number1;

int number2;

int sum; //holds sum

int product;

int difference;

float quotient;

cout << "Enter two integers: ";
cin >> number1 >> number2;

sum=number1+number2;

cout<<"Sum is: "<<sum<<endl;

product=number1*number2;

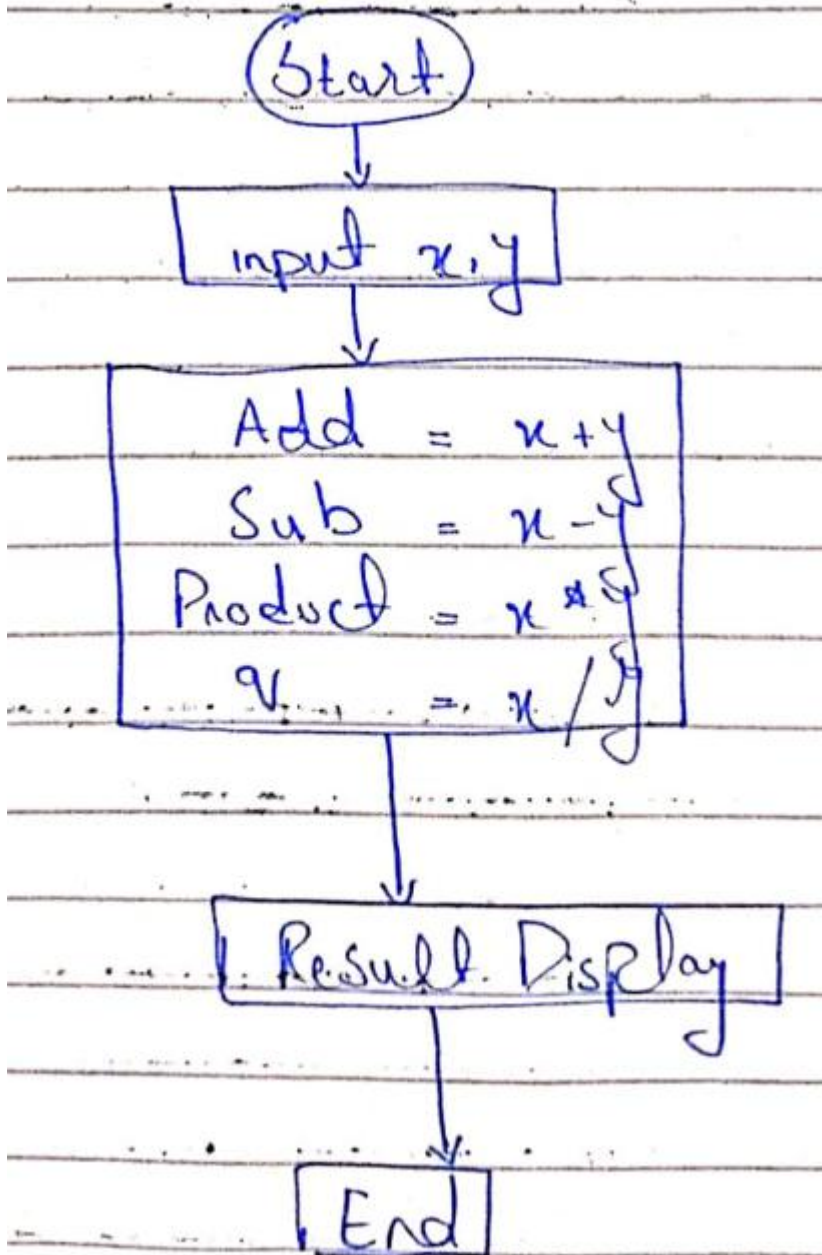
cout<<"Product is: "<<product<<endl;

difference=number1-number2;

cout<<"Difference is: "<<difference<<endl;

if(number2!=0){
quotient=(float)number1/number2;

cout<<"Quotient is: "<<quotient<<endl;
}
}
```

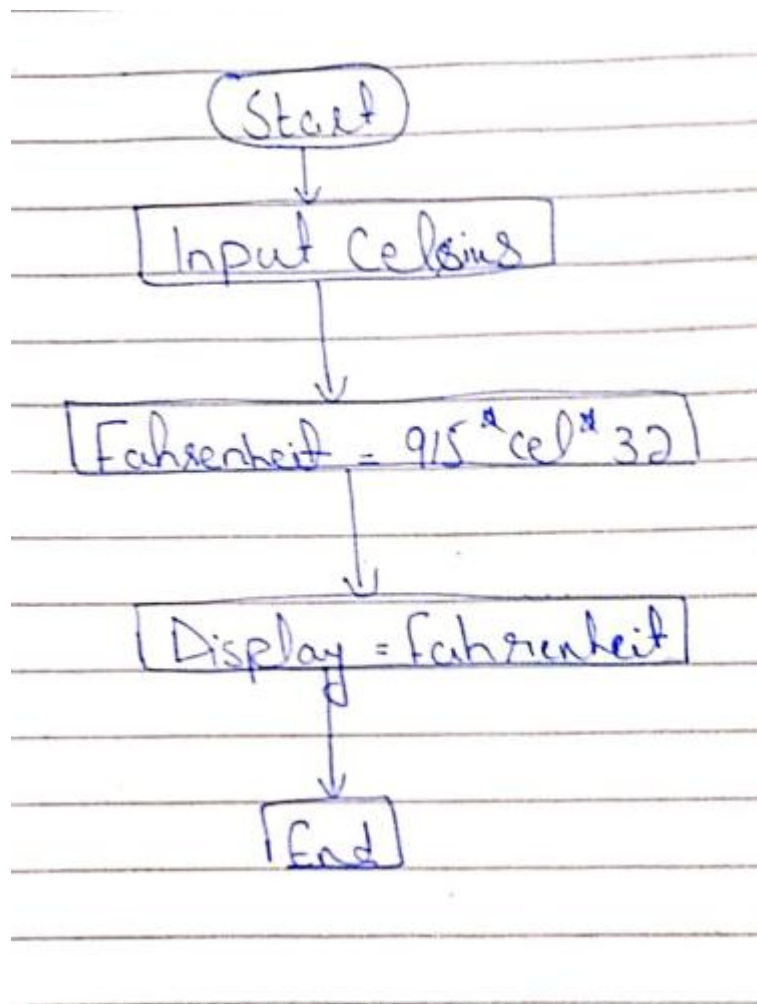


Q.1.b:

Ans: `#include<iostream>`

`using namespace std;`

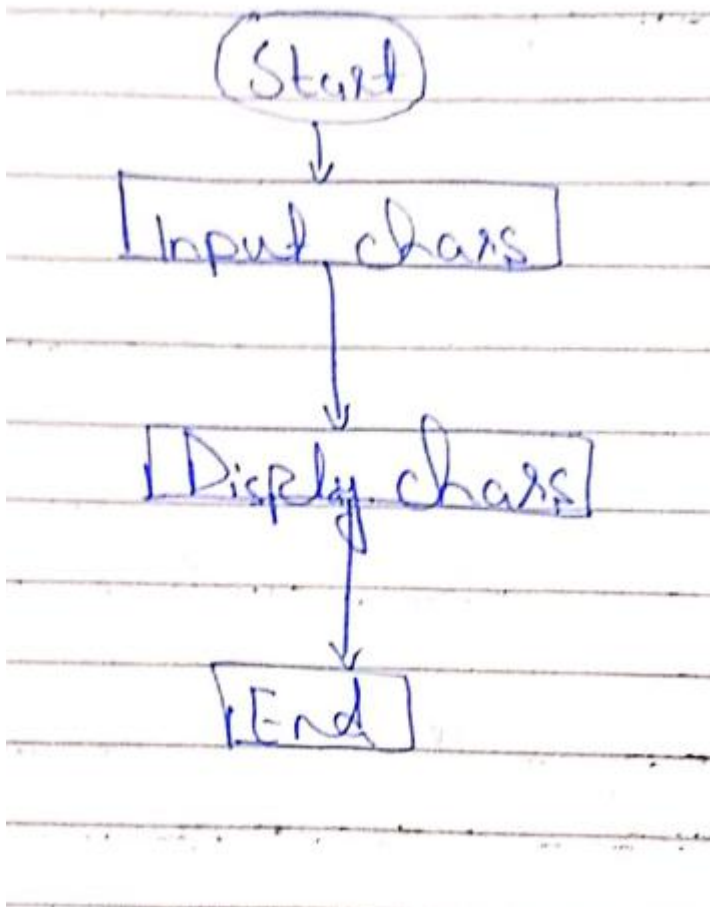
```
int main()
{
float fahrenheit, celsius;
cout << "Enter the temperature in Celsius : ";
cin >> celsius;
fahrenheit = (celsius * 9.0) / 5.0 + 32;
cout << "The temperature in Celsius : " << celsius << endl;
cout << "The temperature in Fahrenheit : " << fahrenheit << endl;
return 0;
}
```



Q.2.a:

Ans:

```
#include <iostream>
using namespace std;
int main ()
{
string a;
cout << "Enter 3 characters " ;
cin >> a;
cout << "Hello," << a << " " << "we hope you have a nice day";
}
```



Q.2.b:

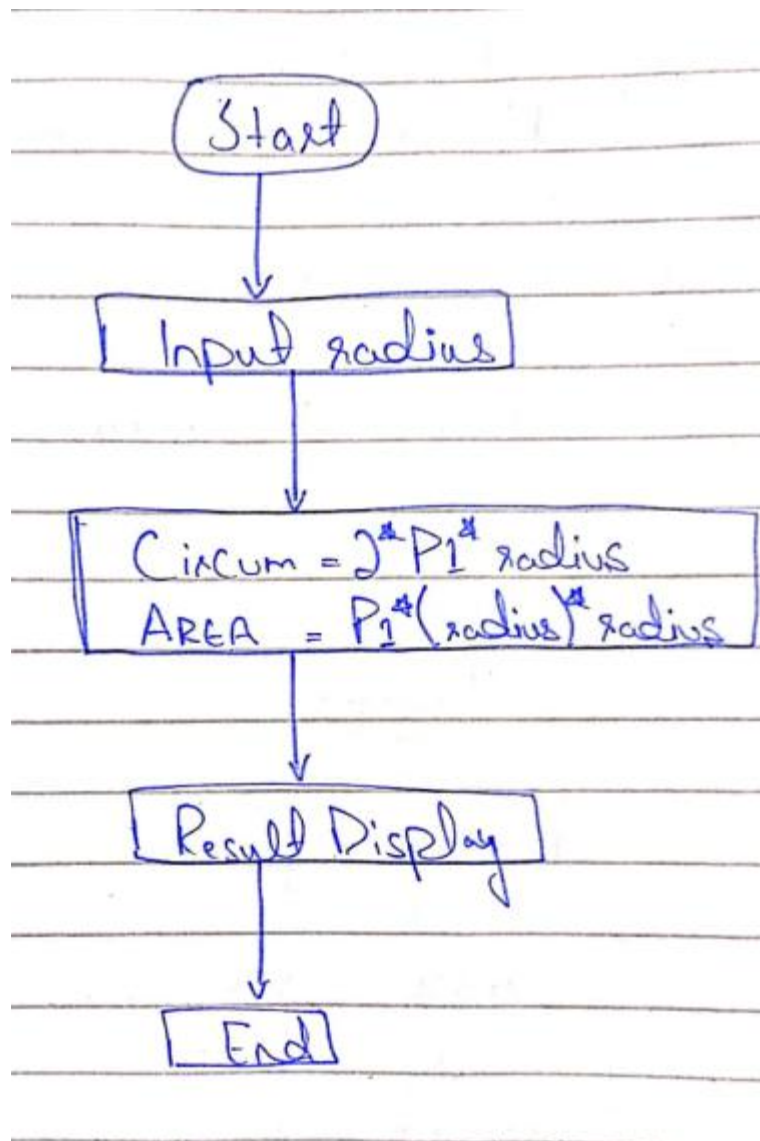
Ans:

```
#include <iostream>
#define PI 3.14159
using namespace std;

int main()
{
    float radius, area, circum;
    cout << "\n\n Find the area and circumference of any circle :\n";
    cout << "-----\n";
    cout << " Input the radius(1/2 of diameter) of a circle : ";
    cin >> radius;

    circum = 2*PI*radius;
    area = PI*(radius*radius);
    cout << " The area of the circle is : " << area << endl;
    cout << " The circumference of the circle is : " << circum << endl;

    cout << endl;
    return 0;
}
```



}

Q.3.a:

Ans:

```
#include<iostream>
using namespace std;
int main()
{
    int mark[3], i;
    float sum=0;
```

```
    cout<<"Enter marks obtained in three tests :";  
    for(i=0; i<3; i++)  
    {  
        cin>>mark[i];  
        sum=sum+mark[i];  
    }  
    float perc;  
    perc=(sum/150)*100;  
    cout<<"\nPercentage = "<<perc<<"%";  
}
```

Q.3.b:

Ans:

```
#include <iostream>  
#include <string>  
using namespace std;  
int main() {  
    int a , b , c , d;  
    cout <<"enter the water";  
    cin >> a;  
    cout << "initial temperature";  
    cin>>b;  
    cout <<"final temperature";  
    cin >>c;  
    d= a*(c-b) * 4184;  
    cout << "the energy:"<< d;  
  
    return 0;
```

}

