**1. area and circumference of circle**

#include<stdio.h>

#include<conio.h>

void main()

{

float radius;

scanf("%f",&radius);

float area=3.14\*radius\*radius;

printf("the area of circle is %f \n",area);

float circumference=2\*3.14\*radius;

printf("the circumference of circle is %f \n",circumference);

}

**2.using function:**

using function

#include<stdio.h>

#include<conio.h>

void aoc(float radius)

{

float area=3.14\*(radius\*radius);

printf("the area of circle is %f \n",area);

}

void coc(float radius)

{

float circumference=2\*3.14\*radius;

printf("the circumference of circle is %f \n",circumference);

}

void main()

{

float radius;

scanf("%f",&radius);

aoc(radius);

coc(radius);

}

**3.ascii**

#include<stdio.h>

#include<conio.h>

void main()

{

char ce;

scanf("%c",&ce);

printf("ASCII value of %c=%d",ce,ce);

}

**4. area of rectangle:**

#include<stdio.h>

#include<conio.h>

void main()

{

float length;

scanf("%f",&length);

float breadth;

scanf("%f",&breadth);

float area=length\*breadth;

printf("the area of rectangle is %f \n",area);

}

5. **area of triangle:**

#include<stdio.h>

#include<conio.h>

void main()

{

float base;

scanf("%f",&base);

float height;

scanf("%f",&height);

float area=0.5\*(base)\*(height);

printf("the area of triangle is %f \n",area);

}

**6.Name into abbreviated form:**

#include<stdio.h>

#include<conio.h>

void main()

{

char fname[20],mname[20],lname[20];

printf("enter the name :(fname,mname,lname)");

scanf("%s %s %s",fname,mname,lname);

printf("Abbrevated form: %c %c %s\n",fname[0],mname[0],lname);

}

**7.Simple Interest:**

#include<stdio.h>

#include<conio.h>

void main()

{

int principal,rate,time;

scanf("%d%d%d",&principal,&rate,&time);

int SI=(principal\*rate\*time)/100;

printf("simple interest: %d",SI);

}

**8.gross salary:**

#include<stdio.h>

#include<conio.h>

void main()

{

//HRA house rent allownace ,basic salary,DA daily allowance,PF provident fund

int basic\_salary;

printf("enter the basic salary");

scanf("%d",&basic\_salary);

int HRA=basic\_salary\*0.25;

int DA=basic\_salary\*0.50;

if(basic\_salary==17000)

{

printf("A grade :%d",basic\_salary);

}

else

{

printf("B grade :%d",basic\_salary);

}

}

**9.percentage**

#include<stdio.h>

#include<conio.h>

void main()

{

int english,telugu,maths;

printf("enter the marks");

scanf("%d%d%d",&english,&telugu,&maths);

float percentage=(english+telugu+maths)/100\*100;

printf("the percentage is %f",percentage);

}

**10.temperature**

**//fahrenheit=celsius\*9/5+32**

void main()

{

float c,f;

//celsius to fahrenheit

scanf("%f",&c);

f=c\*9/5+32;

printf("fahrenheit temp is %f",f);

}

**//celcius to fahrenheit:formula celcius=(fahrenheit-32)\*5/9**

void main()

{

float c,f;

//celsius to fahrenheit

scanf("%f",&f);

c=(f-32)\*5/9;

printf("celsius temp is %f",c);

}

**11.size of data types:**

void main()

{

int intType;

float floatType;

double doubleType;

char charType;

printf("size of int:%zu bytes\n",sizeof(intType));

printf("size of float:%zu bytes\n",sizeof(floatType));

printf("size of double:%zu bytes\n",sizeof(doubleType));

printf("size of char:%zu bytes\n",sizeof(charType));

}

**12.//factorial**

//factorial

#include<stdio.h>

#include<conio.h>

void main()

{

int n,fact=1,i;

printf("enter the number");

scanf("%d",&n);

for(i=1;i<=n;i++)

fact=fact\*i;

printf("the factorial of a number is %d is %d",n,fact);

}

**13.Power of N^1,N^2,N^3**

//power 1,2,3

#include<stdio.h>

#include<conio.h>

//another method

void main()

{

int n;

scanf("%d",&n);

printf("power of n is %d %d %d",n,n\*n,n\*n\*n);

}

//another method

#include<stdio.h>

#include<conio.h>

void main()

{

int n;

printf("enter the number");

scanf("%d",&n);

int a=pow(n,1);

int b=pow(n,2);

int c=pow(n,3);

printf("%d %d %d",a,b,c);

}

**14.LCM of two numbers**

//LCM of two numbers

#include<stdio.h>

#include<conio.h>

void main()

{

int n1,n2,max;

printf("enter the two numbers");

scanf("%d%d",&n1,&n2);

max=(n1>n2)?n1:n2;

while(1)

{

if((max%n1==0)&&(max%n2==0))

{

printf("the LCM of two numbers is %d and %d is %d",n1,n2,max);

break;

}

max++;

}

}

**15.GCD of two numbers**

//GCD of two numbers

#include<stdio.h>

#include<conio.h>

void main()

{

int n1,n2;

printf("enter the two numbers");

scanf("%d%d",&n1,&n2);

while(n1!=n2)

{

if(n1>n2)

n1-=n2;

else

n2-=n1;

}

printf("gcd =%d",n1);

}

**16.Greatest numbers**

//Greatest numbers

#include<stdio.h>

#include<conio.h>

void main()

{

int n1,n2,n3,greater;

printf("enter the three numbers");

scanf("%d%d%d",&n1,&n2,&n3);

if((n1>n2)&&(n1>n3))

greater=n1;

else if((n2>n1)&&(n2>n3))

greater=n2;

else

greater=n3;

printf("the greatest number is =%d",greater);

}

**17.positive or negative number**

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("enter the number");

scanf("%d",&num);

if(num==0)

printf("%d is whole number",num);

else if(num>=0)

printf("%d is positive",num);

else

printf("%d is negative",num);

}

**18.Vowel or consonant:**

#include<stdio.h>

#include<conio.h>

int main()

{

char c;

printf("enter the character");

scanf("%c",&c);

char lowercase=((c=='a')||(c=='e')||(c=='i')||(c=='o')||(c=='u'));

char uppercase=((c=='A')||(c=='E')||(c=='I')||(c=='O')||(c=='U'));

if(lowercase||uppercase)

printf("entered character %c is vowel",c);

else

printf("entered character %c is consonant",c);

}

**19.Is Alphabet or not**

#include<stdio.h>

int main()

{

char ch;

printf("enter the character");

scanf("%c",&ch);

if((ch>='a'&&ch<='z')||(ch>='A'&&ch<='Z'))

printf("entered character is alphabet");

else

printf("entered character is not a alphabet");

}

**20.lower,upper,specialcharacter,symbols**

#include<stdio.h>

#include<conio.h>

int main()

{

char ch;

printf("enter the character");

scanf("%c",&ch);

if(ch>=65&&ch<=90)

printf("upper");

else if(ch>=97&&ch<=122)

printf("lower");

else if(ch>=48&&ch<=57)

printf("numbers");

else

printf("symbols");

return 0;

}

**21.Even or odd**

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("enter the number");

scanf("%d",&num);

if(num%2==0)

{

printf("%d is even",num);

}

else

{

printf("%d is odd",num);

}

}

**22.biggest of two numbers**

#include<stdio.h>

#include<conio.h>

int main()

{

int num1,num2;

printf("enter the number");

scanf("%d%d",&num1,&num2);

if(num1>num2)

{

printf("%d is bigger",num1);

}

else

{

printf("%d is bigger",num2);

}

}

**23.Leap year**

#include<stdio.h>

#include<conio.h>

int main()

{

int num1;

printf("enter the number");

scanf("%d",&num1);

if((num1%4==0 && num1%400==0)|| (num1%100!=0))

printf("%d is leap year",num1);

else

printf("%d is not leap year",num1);

}

**24.//input=abcd ,abc and output=badc,abc program in c++**

#include<bits/stdc++.h>

using namespace std;

int main()

{

string str;

cin>>str;

for(int i=0;i<str.length()-1;i+=2)

{

if(i+1<str.length())

{

swap(str[i],str[i+1]);

}

}

cout<<str;

}

**25.Voting**

#include<stdio.h>

#include<conio.h>

int main()

{

int age;

scanf("%d",&age);

if(age>=18)

{

printf("eligible for voting",age);

}

else

{

printf("not eligible for voting ",age);

}

}

**26.Number divisible by 5 and 11:**

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

scanf("%d",&num);

if(num%5==0 && num%11==0)

{

printf("number divisible by 5 and 11",num);

}

else

{

printf("number not divisible by 5 and 11",num);

}

}

**27.Alphabet or not:**

#include<bits/stdc++.h>

using namespace std;

int main()

{

char ch;

cin>>ch;

if(ch>=65 && ch <=90)

cout<<"alphabet";

else if(ch>=97 && ch<=122)

cout<<" alphabet";

else

cout<<"not a alphabet";

}

**28.//Linear Search:**

#include<stdio.h>

#include<conio.h>

int main()

{

int a[30],flag=0,n,key,i;

printf("enter the number of elements");

scanf("%d",&n);

printf("enter the elements");

for(int i=1;i<=n;i++)

{

scanf("%d",&a[i]);

}

printf("enter the key element");

scanf("%d",&key);

for(i=0;i<=n;i++)

{

if(a[i]==key)

flag=1;

}

if(flag==1)

printf("searching is successfull key element found");

else

printf("searching is successfull but key element is not found");

}

**29.Binary Search:**

#include<stdio.h>

#include<conio.h>//x=4

int Binary\_search(int array[],int x,int low,int high)//3 4 5 6 7 8 9

{ //low mid high

while(low <= high)

{

int mid=low+(high-low)/2;

if(array[mid]==x)

{

return mid;

}

if(array[mid]<x)

{

low=mid+1;

}

else

high=mid-1;

}

return -1;

}

int main()

{

int array[]={3, 4 ,5 ,6, 7, 8 ,9};

int n=sizeof(array)/sizeof(array[0]);

int x;

printf("enter the x value");

scanf("%d",&x);

int result=Binary\_search(array,x,0,n-1);

if(result==-1)

printf("element is not found");

else

printf(" element is found ",result);

}

**30.Bubble sort**

#include<stdio.h>

void Bubble\_sort(int array[],int size)

{

int i,j;

for(i=0;i<size-1;i++)//array access

{

for(j=0;j<size-i-1;j++)//comparing arrray elements

{

if(array[j]>array[j+1])

{

int temp=array[j];

array[j]=array[j+1];

array[j+1]=temp;

}

}

}

}

void printarray(int array[],int size)

{

int i;

for(i=0;i<size;i++)

{

printf("%d ",array[i]);

}

printf("\n");

}

int main()

{

int data[]={5,4,3,2,1};

int size=sizeof(data)/sizeof(data[0]);

Bubble\_sort(data,size);

printf("sorted array in ascending order is ");

printarray(data,size);

}