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Note: All Above programs are compiled and executed with compiler Dev-c++ 5.3.0.4.

# Write a simple program to print your name, class.

#include <iostream> using namespace std; int main()

{

cout << "My name is Bakran Ajas" << endl; cout << "Class: 11-B ." << endl;

return 0;

}

# Write C++ program to calculate sum of two numbers

#include<iostream> using namespace std; int main()

{

int sum,a,b;

cout<<"Enter value of a:"<<endl; cin>>a;

cout<<"Enter value of b:"<<endl; cin>>b;

cout<<"The sum of a and b is "<<(a+b); return 0;

}

# Write C++ Program to print your name 100 times.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int i; for(i=1;i<=100;++i)

cout<<"Your Name"<<"\n"; return 0;

}

# Write C++ program to swap two numbers using macros

#include<iostream> #include<conio.h>

#define SWAP(a,b) {int temp; temp=a; a=b; b=temp;} using namespace std;

int main()

{

int x,y;

cout<<"Enter two numbers:"; cin>>x>>y;

cout<<"x="<<x<<" y="<<y; SWAP(x,y);

cout<<"\nx="<<x<<" y="<<y; return 0;

}

# Write C++ Program To Accept Student Roll No, Marks in 3 Subjects and Calculate Total, Average and Print it.

# include <stdio.h> #include<iostream> # include <conio.h> using namespace std; int main()

{

int r,b,c,d, tot, avg;

cout<<"ENTER STUDENT ROLL NO ; "<<endl;

cin>>r;

cout<<"ENTER FIRST SUBJECT MARKS ;"<<endl;

cin>>b;

cout<<"ENTER SECOND SUBJECT MARKS;"<<endl;

cin>>c;

cout<<"ENTER THIRD SUBJECT MARKS ;"<<endl;

cin>>d; tot=b+c+d; avg=tot/3;

cout<<"\n\n\t\t Lovely Professional University \n\n"; cout<<"\t STUDENT RNO :"<<r<<endl;

cout<<"\t FIRST SUBJECT MARKS :"<<b<<endl; cout<<"\t SECOND SUBJECT MARKS :"<<c<<endl; cout<<"\t THIRD SUBJECT MARKS :"<<d<<endl;

cout<<"\t AVERAGE MARKS :"<<avg<<endl;

return 0;

}

# Write C++ Program to Read Three Numbers And Print The Biggest Of Given Three Numbers

# include <stdio.h> #include<iostream> # include <conio.h> using namespace std; int main( )

{

int a,b,c,big=0;

cout<<"ENTER VALUE FOR A:";

cin>>a;

cout<<"ENTER VALUE FOR B:";

cin>>b;

cout<<"ENTER VALUE FOR C:";

cin>>c;

if (a>big) big=a ; if(b>big) big=b;

if (c>big) big=c;

cout<<"BIGGEST OF ABOVE GIVEN THREE NUMBER IS "<<big;

return 0;

}

# Write C++ Program to print numeric pyramid

# include <stdio.h> #include<iostream> # include <conio.h> using namespace std; main()

{

int i,j; for(i=1;i<=5;i++)

{

for(j=1;j<=i;j++) cout<<j; cout<<"\n";

}

return 0;

}

# Write C++ Program to convert binary number to decimal number

#include<iostream> #include<conio.h> #include<math.h> using namespace std; int main()

{

unsigned long i,n,num=0,d; cout<<"Enter any Binary number:"; cin>>n;

cout<<"\nThe Decimal conversion of "<<n<<" is "; for(i=0;n!=0;++i)

{

d=n%10;

num=(d)\*(pow(2,i))+num; n=n/10;

}

cout<<num; return 0;

}

# Write C++ Program to convert a decimal number to binary number

#include<iostream> #include<conio.h> using namespace std; int main()

{

int d,n,i,j,a[50]; cout<<"Enter a number:";

cin>>n; cout<<"\nThe binary conversion of "<<n<<" is 1"; for(i=1;n!=1;++i)

{

d=n%2; a[i]=d; n=n/2;

}

for(j=i-1;j>0;--j) cout<<a[j]; return 0;

}

# Write program to display number in hexadecimal form

#include <iostream.h> int main()

{

int x;

cout << Enter an integer:" << endl; cin >> x;

// hex keyword displays a number in hexadecimal form. cout << "x=" << hex << x << endl;

cin.get(); return 0;

}

# Write a program to swap to numbers using a third variable called temp.

#include <iostream.h> int main()

{

int a = 40; int b = 20; int temp;

cout << "Value of a (before swap): " << a << endl; cout << "Value of b (before swap): " << b << endl; temp=a;

a=b; b=temp;

cout << "Value of a (after swap): " << a << endl; cout << "Value of b (after swap): " << b << endl; return 0;

}

# Write a c++ Program to print ODD numbers from 1 to 10

# include <iostream> using namespace std; int main( )

{

int i;

for (i=1; i<=10; i+=2) cout<<i<<" ";

return 0;

}

# Write a c++ Program to print natural numbers from 1 to 10 in Reverse

# include <iostream> using namespace std; int main( )

{

int i;

for (i=10; i>=1; i--) cout<<i<<" "; return 0;

}

# Write a c++ Program to accept a string in any case and print it by another case.

# include <iostream> #include<conio.h> #include<stdio.h> using namespace std; int main( )

{

char ch;

cout<<"enter a string :"; while(( ch=getchar( ))!='\n')

{

if(ch>='A' && ch<='Z') putchar(ch+32);

else

if(ch>='a' && ch<='z') putchar(ch-32);

else putchar(ch);

}

cout<<"is the string"; return 0;

}

# Write C++ Program to check whether a given number is perfect or not.

# include <stdio.h> #include<iostream> # include <conio.h> using namespace std; int main( )

{

int i,n,s=0;

cout<<"enter the number"; cin>>n;

for(i=1;i<n/2;i++) if(n%i==0)

s+=i; if(s==n)

cout<<"the number is perfect no"; else

cout<<"the number is not perfect "; return 0;

}

# Write C++ Program to print table of any number

#include<iostream> #include<conio.h> using namespace std; int main()

{

int i,n;

cout<<"Enter number for which you want to generate table:"; cin>>n;

cout<<"\n\n"; for(i=1;i<=10;++i)

cout<<"\t"<<n<<"\*"<<i<<"="<<n\*i<<"\n"; return 0;

}

# Write C++ Program to read ‘n’ number and print them in matrix terms in all orders.

# include <stdio.h> #include<iostream> # include <conio.h> using namespace std; int main( )

{

int i,n,c,p,q,r,k,a[20]; cout<<"enter the array size"; cin>>n;

cout<<"enter the elements"; for(i=1;i<=n;i++)

cin>>a[i]; i=1;

while(i<=n)

{

if(n%i==0)

{

r=i; c=n/i; k=1;

for(p=1;p<=r;p++)

{

for(q=1;q<=c;q++) cout<<a[k++];

cout<<"\n";

} i++;

return 0;

}

}

}

# Write C++ Program to accept two numbers and print the sum of given two numbers by using pointers

# include <stdio.h> #include<iostream> # include <conio.h> using namespace std; int main( )

{

int a, b,c; a=10; b=20;

c=\*(&a)+\*(&b); cout<<c; return 0;

}

# Write a c++ Program to accept a string in upper case and print it by lower case.

# include <stdio.h> # include <conio.h>

# include <iostream> using namespace std; int main( )

{

char ch,c;

cout<<"enter a string in upper case:"; while(( ch=getchar( ))!='\n')

{

c=ch+32; putchar(c);

}

cout<<" is in lower case"; return 0;

}

# Write a c++ Program to accept any single digit number and print it in words.

# include <stdio.h> # include <conio.h>

# include <iostream> using namespace std; int main( )

{

int n;

cout<<"enter a number :"; cin>>n;

switch(n)

{

case 0: cout<<"ZERO"; break;

case 1: cout<<"ONE"; break;

case 2: cout<<"TWO"; break;

case 3: cout<<"THREE"; break;

case 4: cout<<"FOUR"; break;

case 5: cout<<"FIVE"; break;

case 6: cout<<"SIX";

break;

case 7: cout<<"SEVEN"; break;

case 8: cout<<"EIGHT"; break;

case 9cout<<"NINE"; break;

default:

cout<<"please enter the number between 0 and 9";

}

return 0;

}

# Write C++ program to reverse a number

#include<iostream> #include<conio.h> using namespace std; int main()

{

long n,rev=0,d; cout<<"Enter the number:"; cin>>n;

while(n!=0)

{

d=n%10;

rev=(rev\*10)+d; n=n/10;

}

cout<<"The reversed number is "<<rev; return 0;

}

# Write C++ program to find largest number of a list of numbers entered through keyboard

#include<iostream> #include<conio.h> using namespace std; int main()

{

int i,n,x,large=0;

cout<<"How many numbers?"; cin>>n;

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

{

cout<<"\nEnter number "<<i+1<<":"; cin>>x;

if(x>large) large=x;

}

cout<<"\n\nThe largest number is "<<large; return 0;

}

# Write C++ Program to calculate and print the sum of even and odd integers of the first n natural numbers.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int n,i,sumeven=0,sumodd=0; cout<<"Enter value of n:"; cin>>n;

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

{

if(i%2==0) sumeven+=i; else sumodd+=i;

}

cout<<"\nSum of even Numbers is "<<sumeven; cout<<"\nSUm of odd Numbers is "<<sumodd; return 0;

}

# Write C++ Program to find area of a triangle when there sides are given.

# include <stdio.h> #include<iostream> # include <conio.h> #include<math.h> using namespace std; int main( )

{

int a,b,c; float s, area;

cout<<"enter there sides of the triangle"; cin>>a>>b>>c; if((a+b)<c||(b+c)<a||(a+c)<b) cout<<"finding area is not possible";

else s=(a+b+c)/2;

area=sqrt(s\*(s-a)\*(s-b)\*(s-c)); cout<<"area="<<area;

return 0;

}

# Write C++ Program to find whether a number is divisible by ‘11’ or not without actual division.

#include<stdio.h> #include<conio.h> #include<iostream> #include<math.h> using namespace std; int main( )

{

int a,b,n,evensum=0,oddsum=0,div; cout<<"enter a number";

cin>>n; a=n; b=n/10; while(a>0)

{

oddsum=oddsum+(a%10); a=a/10;

}

while(b>0)

{

evensum=evensum+(b%10); b=b/10;

}

div=abs(evensum-oddsum); if(div%11==0)

cout<<"The number is divisible by 11"; else

cout<<"The number is not divisible by 11"; return 0; }

# Write C++ Program to check whether a number is prime number or not

#include<iostream> #include<conio.h> using namespace std; int main()

{

int n,i,flag=1;

cout<<"Enter any number:"; cin>>n;

for(i=2;i<=n/2;++i)

{

if(n%i==0)

{

flag=0; break;

}

}

if(flag)

cout<<"\n"<<n<<" is a Prime number"; else

cout<<"\n"<<n<<" is not a Prime number"; return 0;

}

# Write C++ Program to print following series using function: x + x^3/3! + x^5/5! +.......+ x^n/n!

#include<iostream> #include<conio.h> using namespace std; int main()

{

int x,n;

double sum(int,int); double res;

cout<<"x + x^3/3! + x^5/5! + + x^n/n!";

cout<<"\n\nEnter value of x and n:"; cin>>x>>n;

res=sum(x,n);

cout<<"\nSum of series is "<<res; getch();

}

double sum(int a,int b)

{

long power(int,int); int i,j;

double s=0,fac=1; long p; for(i=1;i<=b;i+=2)

{

p=power(a,i);

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

{

fac\*=j;

}

s+=p/fac; fac=1;

}

return(s);

}

long power(int x,int i)

{

long res=1,j; for(j=1;j<=i;++j)

{

res\*=x;

}

return(res);

}

# Write C++ program to find sum of series 1 + 2 + 3 +......+ n

#include<iostream> #include<conio.h> using namespace std; int main()

{

int i,n,sum=0; cout<<"1+2+3+ +n";

cout<<"\nEnter the value of n:"; cin>>n;

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

sum+=i; cout<<"\nSum="<<sum; return 0;

}

# Write C++ program to find sum of series 1/2+4/5+7/8+......

#include<iostream> #include<conio.h> using namespace std; int main()

{

int i,n;

float sum=0,x,a=1; cout<<"1/2+4/5+7/8+ ";

cout<<"\n\nHow many terms(ex: 1,2,3 n)?";

cin>>n;

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

{

x=a/(a+1); sum+=x; a+=3;

}

cout<<"\nSum="<<sum; return 0;

}

# Write C++ program to find sum of series 1+x+x^2+ +x^n

#include<iostream> #include<conio.h> #include<math.h> using namespace std; int main()

{

long i,n,x,sum=1; cout<<"1+x+x^2+ +x^n";

cout<<"\n\nEnter the value of x and n:"; cin>>x>>n;

for(i=1;i<=n;++i) sum+=pow(x,i); cout<<"\nSum="<<sum; return 0;

}

# Write C++ program to find sum of series 1^2+3^2+5^2+ +n^2.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int n,i;

long sum=0;

cout<<"1^2+3^2+5^2+......+n^2\n\n Enter Value of n:"; cin>>n;

for(i=1;i<=n;i+=2) sum+=(i\*i);

cout<<"\n Sum of given series is "<<sum; return 0;

}

# Write C++ Program to print given series:1 2 4 8 16 32 64

128

#include<iostream> #include<conio.h> using namespace std; int main()

{

int i; for(i=1;i<=128;i\*=2) cout<<i<<" "; return 0;

}

# Write C++ Program to Print following series: 1 -4 7 - 10 ..-40

#include<iostream> #include<conio.h> using namespace std; int main()

{

int i,a=-1,b; for(i=1;i<=40;i+=3)

{

a\*=-1; b=i; b\*=a;

cout<<b<<" ";

}

return 0;

}

# Write C++ program to swap values of two variables using pass by reference method

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a,b;

void swap(int &,int &); cout<<"Enter two values:"; cin>>a>>b;

cout<<"\nBefor swapping:\na="<<a<<"\tb="<<b; swap(a,b);

cout<<"\n\nAfter swapping:\na="<<a<<"\tb="<<b; return 0;

}

void swap(int & x,int & y)

{

int temp; temp=x; x=y; y=temp;

}

# Write C++ program to print truth table of XY+Z.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int x,y,z; cout<<"X\tY\tZ\tXY+Z"; for(x=0;x<=1;++x) for(y=0;y<=1;++y) for(z=0;z<=1;++z)

{

if(x\*y+z==2)

cout<<"\n\n"<<x<<"\t"<<y<<"\t"<<z<<"\t1";

<<x\*y+z;

}

return 0;

else

cout<<"\n\n"<<x<<"\t"<<y<<"\t"<<z<<"\t"

}

# Write C++ Program to find First three Pythagorian Triplet.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int x,y,z; cout<<"X\tY\tZ\tXY+Z"; for(x=0;x<=1;++x) for(y=0;y<=1;++y) for(z=0;z<=1;++z)

{

if(x\*y+z==2)

cout<<"\n\n"<<x<<"\t"<<y<<"\t"<<z<<"\t1";

<<x\*y+z;

}

return 0;

else

cout<<"\n\n"<<x<<"\t"<<y<<"\t"<<z<<"\t"

}

# Write C++ Program to Check Whether a Number is Unique Number or Not

#include<iostream> #include<stdlib.h> using namespace std; int main()

{

long num; char str[10];

int a[10]={0},flag=1,i=0; cout<<"Enter any number:"; cin>>num;

itoa(num,str,10); //convert number to character array while(str[i]!='\0')

{

switch(str[i])

{

case '0': a[0]++;

break; case '1': a[1]++;

break; case '2': a[2]++;

break; case '3': a[3]++;

break; case '4': a[4]++;

break; case '5': a[5]++;

break; case '6': a[6]++;

break; case '7': a[7]++;

break; case '8': a[8]++;

break; case '9': a[9]++;

break;

}

i++;

}

for(i=0;i<10;i++)

{

if(a[i]>1)

{

flag=0; break;

}

}

if(flag)

cout<<"\nNumber is Unique"; else

cout<<"\nNumber is Not Unique"; return 0;

}

# Write a program to swap to numbers without using a third variable

#include <iostream.h> int main()

{

int a = 80; int b = 20;

cout << "Value of a (before swap): " << a << endl; cout << "Value of b (before swap): " << b << endl; a = a + b;

b = a - b;

a = a - b;

cout << "Value of a (after swap): " << a << endl; cout << "Value of b (after swap): " << b << endl; cin.get();

return 0;

}

# Write C++ program to calculate area of a circle,a rectangle or a triangle depending upon user's choice

#include<iostream> #include<conio.h> #include<math.h> using namespace std; int main()

{

float a,b,c,s,r,area; int ch;

cout<<"\*\*\*Menu\*\*\*\n1.Area of circle\n2.Area of Rectangle"; cout<<"\n3.Area of triangle\nEnter your choice:";

cin>>ch;

switch(ch)

{

case 1:

{

}

case 2:

{

cout<<"\nEnter radius of the circle:"; cin>>r;

area=3.14\*r\*r; break;

cout<<"\nEnter length and breadth:";

}

case 3:

{

}

cin>>a>>b; area=a\*b; break;

cout<<"\nEnter three sides of the triangle:"; cin>>a>>b>>c;

s=(a+b+c)/2;

area=sqrt(s\*(s-a)\*(s-b)\*(s-c)); break;

default: cout<<"\nWrong choice...!!!"; break;

}

cout<<"Area="<<area; return 0;

}

# Write C++ Program to perform all arithmetic calculation using switch case

#include<iostream> #include<conio.h> using namespace std; int main()

{

float a,b,res; int ch,q;

cout<<"Arithmetic Operatios"; cout<<"\n\n1.Addition\n2.Subtraction\n3.Multiplication\n4.Division\n5. cout<<"\n Enter your choice:";

cin>>ch;

switch(ch)

{

case 1:

{

cout<<"\n\nEnter two variables:"; cin>>a>>b;

res=a+b;

cout<<"\n Result="<<res;

}

break;

case 2:

{

cout<<"\n\nEnter two variables:"; cin>>a>>b;

res=a-b;

cout<<"\n Result="<<res;

}

break;

case 3:

{

cout<<"\n\nEnter two variables:"; cin>>a>>b;

res=a\*b;

cout<<"\n Result="<<res;

}

break;

case 4:

{

cout<<"\n\nEnter two variables:"; cin>>a>>b;

if(a>=b)

{

res=a/b;

cout<<"\n Result="<<res;

}

else

cout<<"\n\n\t1st varable should be greater than 2nd.!!!";

}

break;

case 5:

{

cout<<"\n\nEnter two variables:"; cin>>a>>b;

if(a>=b)

{

q=a/b; res=a-(b\*q);

cout<<"\n Result="<<res;

}

else

cout<<"\n\n\t1st variable should be greater than 2nd..!!!";

}

break;

}

return 0;

}

# Write C++ Program to do arithmetic operations according to user choice using switch case

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a,b; char c;

cout<<"Enter any expression(ex:3\*7):"; cin>>a>>c>>b;

switch(c)

{

case'+': cout<<"\nResult:"<<a+b; break;

case'-': cout<<"\nResult:"<<a-b; break;

case'\*': cout<<"\nResult:"<<a\*b; break;

case'/': cout<<"\nResult:"<<a/b; break;

case'%': cout<<"\nResult:"<<a%b; break;

}

return 0; }

# Write a program to check given number is multiple of number entered by user.

//lets say given number is 78. #include <iostream.h>

int main()

{

int check\_num; int num=78;

cout << Enter an integer:"; cin >> check\_num;

// use % operator to check remainder if(check\_num%78)

cout<<num<<"is not multiple of "<<check\_num<<endl; else

cout<<num<<"is multiple of "<<check\_num<<endl;

return 0;

}

# Write a program to check given year is leap or not.

//conditions for leap year are as follows

// leap years occur in years exactly divisible by four,

// except that years ending in 00 are leap years

// only if they are divisible by 400. #include <iostream.h>

#include <conio.h> int main()

{

int year;

cout << "Enter a year (e.g. 2004): "; cin >> year;

if ((year % 400 == 0) || ((year %100 != 0) && (year % 4 == 0))) cout << "The year " << year << " is a leap year" << endl;

else

cout << "The year " << year << " is NOT a leap year" << endl; getch();

return 0;

}

# Write a program to convert gallons to liters.

#include <iostream.h> int main()

{

float gallons, liters;

cout << "Enter number of gallons: ";

cin >> gallons; // Read the inputs from the user liters = gallons \* 3.7854; // convert to liters cout << "Liters: " << liters << endl;

return 0;

}

# Write a C++ program to find the sum of individual digits of a positive integer.

#include<iostream.h> #include<conio.h>

int main()

{

int num, reminder, sum=0; cout<<"Enter the required number:"; cin>>num;

while(num>0)

{

reminder=num%10; sum=sum+reminder; num=num/10;

}

cout<<"Sum of individual digits of a positive integer is:"<< sum; return 0;

}

# Write a C++ program to the number count of letters in a given text.

#include<iostream> #include<conio.h> #include<stdio.h> using namespace std; int main( )

{

char str[80];

int i, c1=0,c2=0; cout<<"Enter the text:"; gets(str);

for(i=0; str[i]!='\0'; i++)

{ c1++;

if(str[i]==' ') c2;

}

cout<<"Total Letters present in the given text :"<< c1-c2; return 0;

}

# Write a C++ program to sort a list of numbers in ascending order.

#include<iostream> #include<conio.h> using namespace std; int main( )

{

int a[10], n, i, j, temp;

cout<<"Enter the no. of elements:"; cin>> n;

cout<<"Enter the array elements:"; for(i=0; i< n; i++)

cin>>a[i];

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

{

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

{

if(a[i]> a[j+1] )

{

temp= a[i]; a[i]= a[j+1]; a[j+1]= temp;

}

}

}

cout<<"Elements after sorting:";

for( i=0; i< n; i++) cout<< a[i]<<" "; return 0;

}

# Write a C++ program to find both the largest and smallest number in a array of integers.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a[100], max, min, i, n;

cout<<"Enter number elements in the array? :"; cin>>n;

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

{

cout<<"Enter the numbers: "; cin>>a[ i ];

if(i==0)

{ max=a[i ];

min=a[i ]; }

if(a[ i]>max)

max= a[i ];

if(a[i ]< min)

min= a[i ];

}

cout<<"Maximum : "<< max<<endl; cout<<"Minimum : "<< min;

getch( );

}

# Write a program to find the largest of two numbers.

#include <iostream> using namespace std; int main()

{

int a, b;

cout << "Enter first number: "; cin >> a;

cout << "Enter second number: "; cin >> b;

if(a < b)

cout << "First number is less than second.\n"; return 0;

}

# Write a program to generate square root of 1 to 10.

#include <iostream> #include <math.h> using namespace std; int main()

{

int num; double sqroot;

for(num=1; num < 10; num++) {

sqroot = sqrt((double) num); //casting num from integer to double

cout << num << " " << sqroot << '\n';

}

return 0;

}

# Write a program to find out entered number.

#include <iostream> using namespace std; int main()

{

int choice;

cout << "Enter an integer number: 1 - 5 " ; cin >> choice;

switch (choice)

{

case 1:

cout << "You entered 1."; break;

case 2:

cout << "You entered 2."; break;

case 3:

cout << "You entered 3."; break;

case 4:

cout << "You entered 4."; break;

case 5:

cout << "You entered 5."; break;

default:

cout << "Invalid input.";

}

return 0; }

# Write a program to calculate GCD of two numbers.

#include<iostream> using namespace std;

int gcd (int, int); //func. declaration. int main( )

{

int a, b, ans;

cout<<"Enter the two integer values:"; cin>> a >>b;

ans= gcd(a, b); // calling function. cout<<"GCD for given numbers is :" << ans; return 0;

}

int gcd( int x, int y) //called function.

{

int z; z=x%y; if(z==0) return y;

gcd(y,z); //recursive function

}

# Write a program to calculate factorial of a number.

#include<iostream> using namespace std;

int fact( int); // function declaration int main( )

{

int num,result;

cout<<"Enter the required number:"; cin>>num;

result = fact( num); cout<<"Factorial is :" << result; return 0;

}

int fact(int n)

{

int ft;

for( ft=1; n>=1; n--) ft=ft\*n;

return ft;

}

# Write a C++ program to generate all the prime numbers between 1 to n, where n is a value supplied by the user.

#include<iostream> #include<conio.h> using namespace std; int main( )

{

int n, x, flag,ct;

cout<<"Enter the n value:"; cin>> n;

cout<<"Prime Numbers:"; for( ct=1; ct<=n; ct++)

{

x=2; flag=0; while(x<=ct/2)

{

if(ct%x==0) { flag=1; break; } x++;

}

if(flag==0) cout<< ct<<" ";

}

return 0;

}

# Write a C++ program to generate the first n terms of the sequence.

#include<iostream> #include<conio.h> using namespace std; int main( )

{

int frst=0, sec=1, t, n, ct; cout<<"Enter the no. of terms:"; cin>>n;

cout<<"Fibonacci series:"; cout<< frst <<" "<< sec<<" "; for( ct=3; ct<=n; ct++)

{

t=frst+sec; cout<< t<<" "; frst=sec; sec=t;

}

return 0;

}

# Write a C++ program to sort a list of names in ascending order.

#include<iostream> #include<conio.h> #include<stdio.h> #include<string.h> using namespace std; int main()

{

char st[10][10],temp[10]; int i, j, n;

cout<<"Enter the no. of names:"; cin>>n;

cout<<"Enter the different names:"; for(i=0; i< n; i++)

cin>>st[i]; for(i=0; i< n; i++)

{

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

{

if(strcmp(st[i], st[j+1]) >0)

{

strcpy(temp,st[i]);

strcpy(st[i],st[j+1]); strcpy(st[j+1],temp);

}

}

}

cout<<"Given names after ascending order:"; for(i=0;i<5;i++)

cout<< st[i] <<" "; return 0;

}

# Write a program to find absolute value of the integer.

#include <iostream> using namespace std; int main()

{

int number;

int abs\_number;

cout << "Enter an integer (positive or negative): "; cin >> number;

if(number >= 0)

{

abs\_number = number;

}

else

abs\_number = -number;

cout << "The absolute value of " << number << " is " << abs\_number; cout << endl;

return 0;

}

# Write a program for addition of 2 matrices.

#include<iostream> using namespace std; main()

{

int m, n, c, d, first[10][10], second[10][10], sum[10][10];

cout << "Enter the number of rows and columns of matrix "; cin >> m >> n;

cout << "Enter the elements of first matrix\n"; for ( c = 0 ; c < m ; c++ )

for ( d = 0 ; d < n ; d++ ) cin >> first[c][d];

cout << "Enter the elements of second matrix\n"; for ( c = 0 ; c < m ;c++ )

for ( d = 0 ; d < n ; d++ ) cin >> second[c][d];

for ( c = 0 ; c < m ; c++ ) for ( d = 0 ; d < n ; d++ )

sum[c][d] = first[c][d] + second[c][d]; cout << "Sum of entered matrices:-\n"; for ( c = 0 ; c < m ; c++ )

{

for ( d = 0 ; d < n ; d++ ) cout << sum[c][d] << "\t"; cout << endl;

}

return 0;

}

# Write a program to find average of number three numbers

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a,b,c,d;

cout<<"Enter the first no. "<<endl; cin>>a;

cout<<"Enter the second no. "<<endl; cin>>b;

cout<<"Enter the third no. "<<endl; cin>>c;

d=(a+b+c)/3 ;

cout<<"The average of the 3 numbers is"<<d<<endl; return 0;

}

# Write a program to check whether given string is palindrome or not

#include<iostream> #include<conio.h> using namespace std; int main()

{

int i,j,len,flag=1; char a[20];

cout<<"Enter a string:"; cin>>a; for(len=0;a[len]!='\0';++len); for(i=0,j=len-1;i<len/2;++i,--j)

{

if(a[j]!=a[i]) flag=0;

}

if(flag==1)

cout<<"\nThe string is Palindrome"; else

cout<<"\nThe string is not Palindrome"; return 0;

}

# Write a program to Print ASCII value of Digits, Uppercase and Lowercase alphabates.

#include<conio.h> #include<iostream> #include<dos.h> #include<process.h> using namespace std; int main()

{

char ch,a[]={"I just love to Learn Programming "}; int j=0;

cout<<"Uppercase Alphabates\n\n"; for(int i=65;i<91;++i)

{

j++;

ch=i; cout<<ch<<":"<<i<<"\t"; if(j==10)

{

cout<<"\n"; j=0;

}

} j=0;

cout<<"\n\n\nLowercase Alphabates\n\n"; for(int i=97;i<123;++i)

{

j++;

ch=i; cout<<ch<<":"<<i<<"\t"; if(j==10)

{

cout<<"\n"; j=0;

}

}

cout<<"\n\n\nDigits\n\n"; for(int i=48;i<58;i++)

{

ch=i; cout<<ch<<":"<<i<<"\t";

}

cout<<"\n\n\n\n\t\t"; for(int i=0;a[i]!='\0';++i)

{

cout<<a[i];

}

return 0;

}

# Write a C++ Program to raise any number x to a positive power n.

#include<iostream> #include<conio.h>

#include<math.h> //for pow() function using namespace std;

int main()

{

int x,n,res;

cout<<"Enter value of x and n:"; cin>>x>>n;

res=pow(x,n); cout<<"\nResult="<<res; return 0;

}

# Write a C++ Program to convert given inches into equivalent yard, feet and inches.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int y,f,i;

cout<<"Enter inches:"; cin>>i;

y=i/432; i=i%432;

f=i/12; i=i%12;

cout<<"Yard="<<y<<"\nFeet="<<f<<"\nInches="<<i; return 0;

}

# Write a C++ Program to Find ASCII value of a character.

#include<iostream> #include<conio.h> using namespace std; int main()

{

char ch,c; int cha;

cout<<"Enter a character:"; cin>>ch;

cha=ch;

cout<<"\nASCII value of "<<ch<<" is "<<cha; return 0;

}

# Write C++ Program to reverse all the strings stored in an array

#include<iostream> #include<conio.h> #include<string.h> #include<stdio.h> using namespace std; int main()

{

char a[3][50];

int i,j,k,len;

cout<<"Enter 3 strings:\n"; for(i=0;i<3;i++)

{

gets(a[i]);

}

cout<<"\nThe list of orignal strings:\n" ; for(i=0;i<3;i++)

{

cout<<a[i]<<"\n";

}

cout<<"\nThe list of changed string:\n";

for(i=0;i<3;i++)

{

len=strlen(a[i]);

for(j=0,k=len-1;k>=0;j++,k--)

{

cout<<a[i][k];

}

cout<<"\n";

}

return 0;

}

# Write C++ Program to concatenate two strings

#include<iostream> #include<conio.h> #include<stdio.h> using namespace std; int main()

{

char str1[30],str2[30],str3[60]; int i,j;

cout<<"Enter first string:"; gets(str1);

cout<<"\nEnter second string:"; gets(str2); for(i=0;str1[i]!='\0';++i) str3[i]=str1[i]; for(j=0;str2[j]!='\0';++j) str3[i+j]=str2[j];

str3[i+j]='\0';

cout<<"\nThe concatenate string is "<<str3; return 0;

}

# Write C++ Program to convert first alphabet of every word in a string from lowercase to uppercase.

#include<iostream> #include<conio.h> #include<stdio.h> #include<ctype.h> using namespace std; int main()

{

char a[50]; int i;

cout<<"Enter a string:"; gets(a);

cout<<"\n"; if(islower(a[0]))

a[0]=toupper(a[0]);

for(i=0;a[i]!='\0';++i)

{

if(a[i]==' ')

if(islower(a[i+1]))

a[i+1]=toupper(a[i+1]);

}

cout<<"The new string is:"<<a; return 0;

}

# Write C++ Program to reverse a string.

#include<iostream> #include<conio.h> #include<stdio.h> using namespace std; int main()

{

char a[20],a1[20]; int i,j;

cout<<"Enter any String:"<<"\n";

gets(a); cout<<"Reverse of the string is: "; for(i=0;a[i]!='\0';++i);

for(j=i-1;j>=0;--j) cout<<a[j]; return 0;

}

# Write C++ Program to find length of a string.

#include<iostream> #include<conio.h> #include<stdio.h> using namespace std; int main()

{

char a[30]; int i;

cout<<"Enter a string:"; gets(a); for(i=0;a[i]!='\0';++i);

cout<<"\nLenth of the sting '"<<a<<"' is "<<i; return 0;

}

# Write C++ Program to Find Substring in String (Pattern Matching)

#include<iostream> #include<cstdlib> using namespace std; int main()

{

int i,j,temp;

char str[100]={"This is a pattern matching"}; char substr[20]={"pattern"}; for(i=0;str[i]!='\0';i++)

{

j=0;

if(str[i]==substr[j])

{

temp=i+1; while(str[i]==substr[j])

{

i++; j++;

}

if(substr[j]=='\0')

{

cout<<"The substring is present in given string at position "

<<temp<<"\n";

exit(0);

}

else

{

i=temp; temp=0;

}

}

}

if(temp==0)

cout<<"The substring is not present in given string\n"; return 0;

}

# Write C++ Program to Remove Spaces From String

#include<iostream> #include<stdio.h> using namespace std; int main()

{

int i,j=0; char str[30];

cout<<"Enter a String:\n"; gets(str); for(i=0;str[i]!='\0';++i)

{

if(str[i]!=' ')

str[j++]=str[i];

}

str[j]='\0';

cout<<"\nString After Removing Spaces:\n"<<str; return 0;

}

# Write a C++ Program to find Compound Interest.

#include<iostream> #include<conio.h> #include<math.h> using namespace std; int main()

{

float p,r,t,ci;

cout<<"Enter Principle,Rate and Time "; cin>>p>>r>>t;

ci=pow(p\*(1+r/100),t); cout<<"\n"<<"Compound Interest = "<<ci<<"%"; return 0;

}

# Write a C++ Program to Convert given no. of days into years, weeks and days

#include<iostream> #include<conio.h> using namespace std; int main()

{

int y,d,w;

cout<<"Enter No. of days:"; cin>>d;

y=d/365; d=d%365;

w=d/7; d=d%7;

cout<<"\nYears: "<<y<<"\nWeeks: "<<w<<"\nDays: "<<d; return 0;

}

# Write a C++ program to find cube of a number using macros.

#include<iostream> #include<conio.h> #define CUBE(x) (x\*x\*x) using namespace std; int main()

{

int n,cube;

cout<<"Enter a number:"; cin>>n;

cube=CUBE(n); cout<<"Cube="<<cube; return 0;

}

# Write a C++ program to multiply two matrices.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a[5][5],b[5][5],c[5][5],m,n,p,q,i,j,k; cout<<"Enter rows and columns of first matrix:"; cin>>m>>n;

cout<<"Enter rows and columns of second matrix:"; cin>>p>>q;

if(n==p)//condition for matrix multiplication.

{

cout<<"\nEnter first matrix:\n"; for(i=0;i<m;++i)

for(j=0;j<n;++j) cin>>a[i][j];

cout<<"\nEnter second matrix:\n"; for(i=0;i<p;++i)

for(j=0;j<q;++j) cin>>b[i][j];

cout<<"\nThe new matrix is:\n"; for(i=0;i<m;++i)

{

for(j=0;j<q;++j)

{

c[i][j]=0; for(k=0;k<n;++k)

c[i][j]=c[i][j]+(a[i][k]\*b[k][j]); cout<<c[i][j]<<" ";

}

cout<<"\n";

}

}

else

cout<<"\nSorry!!!! Matrix multiplication can't be done, condition not satisfied";

return 0;

}

# Write a C++ program to insert an element in an array.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a[20],n,x,i,pos=0; cout<<"Enter size of array:"; cin>>n;

cout<<"Enter the array in ascending order:\n"; for(i=0;i<n;++i)

cin>>a[i];

cout<<"\nEnter element to insert:"; cin>>x;

for(i=0;i<n;++i) if(a[i]<=x&&x<a[i+1])

{

pos=i+1; break;

}

for(i=n+1;i>pos;--i) a[i]=a[i-1]; a[pos]=x;

cout<<"\n\nArray after inserting element:"; for(i=0;i<n+1;i++)

cout<<a[i]<<" ";

return 0;

}

# Write a C++ program to find largest and second largest no from a 2D array.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a[5][5],big1,big2,n,m,i,j;

cout<<"Enter no of rows and columns(max 5):"; cin>>m>>n;

cout<<"Enter the array:\n"; for(i=0;i<m;i++) for(j=0;j<n;++j)

cin>>a[i][j];

big1=a[0][0]; for(i=0;i<m;++i) for(j=0;j<n;++j)

{

if(a[i][j]>big1)

big1=a[i][j];

}

big2=a[0][0]; for(i=0;i<m;++i) for(j=0;j<n;++j)

{

if(a[i][j]>big2&&a[i][j]<big1)

big2=a[i][j];

}

cout<<"\n\nLargest number:"<<big1; cout<<"\nSecond largest number:"<<big2; return 0;

}

# Write a C++ program to do linear search in Array.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a[20],n,x,i,flag=0; cout<<"How many Elements?"; cin>>n;

cout<<"\nEnter Elements of the Array\n"; for(i=0;i<n;++i)

cin>>a[i];

cout<<"\nEnter Element to search:"; cin>>x;

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

{

if(a[i]==x)

{

flag=1; break;

}

}

if(flag)

cout<<"\nElement is Found at position "<<i+1; else

cout<<"\nElement not found";

return 0;

}

# Write a C++ Program to find element in Array using Binary search

#include<conio.h> #include<iostream> using namespace std; int main()

{

int search(int [],int,int); int n,i,a[100],e=-3,res;

cout<<"How Many Elements:"; cin>>n;

cout<<"\nEnter Elements of Array in Accending order\n"; for(i=0;i<n;++i)

{

cin>>a[i];

}

cout<<"\nEnter element to search:"; cin>>e;

res=search(a,n,e); if(res!=0)

else

getch();

}

cout<<"\nElement is Founded at "<<res+1<<"st position"; cout<<"\nElement is not found !!!";

int search(int a[],int n,int e)

{

int f,l,m; f=0;

l=n-1; while(f<=l)

{

m=(f+l)/2; if(e==a[m])

return(m);

else

if(e>a[m])

f=m+1;

}

return 0;

}

else

l=m-1;

# Write a C++ Program to find highest and lowest element of a Matrix.

#include<iostream> #include<conio.h> using namespace std; int main()

{

int m,n,a[10][10],i,j,high,low; cout<<"Enter no. of rows and coloumns:"; cin>>m>>n;

cout<<"\nEnter matrix:\n"; for(i=0;i<m;++i)

{

for(j=0;j<n;++j) cin>>a[i][j];

}

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

{

high=a[0][0];

low=a[0][0]; for(j=0;j<n;++j)

{

if(a[i][j]>high)

high=a[i][j]; else if(a[i][j]<low)

low=a[i][j];

}

}

cout<<"\nHeighst Element:"<<high<<"\nLowest Element:"<<low<<"\n"; return 0;

}

# Write a C++ Program and Algorithm for Selection Sort.

#include<iostream> using namespace std; int main()

{

int i,j,n,loc,temp,min,a[30]; cout<<"Enter the number of elements:"; cin>>n;

cout<<"\nEnter the elements\n"; for(i=0;i<n;i++)

{

cin>>a[i];

}

for(i=0;i<n-1;i++)

{

min=a[i]; loc=i;

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

{

if(min>a[j])

{

min=a[j]; loc=j;

}

}

temp=a[i]; a[i]=a[loc]; a[loc]=temp;

}

cout<<"\nSorted list is as follows\n"; for(i=0;i<n;i++)

{

cout<<a[i]<<" ";

}

return 0;

}

# Write a C++ Program and Algorithm for Insertion Sort

#include<iostream> using namespace std; int main()

{

int i,j,n,temp,a[30];

cout<<"Enter the number of elements:"; cin>>n;

cout<<"\nEnter the elements\n"; for(i=0;i<n;i++)

{

cin>>a[i];

}

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

{

temp=a[i]; j=i-1;

while((temp<a[j])&&(j>=0))

{

a[j+1]=a[j]; //moves element forward j=j-1;

}

a[j+1]=temp; //insert element in proper place

}

cout<<"\nSorted list is as follows\n";

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

{

cout<<a[i]<<" ";

}

return 0;

}

# Write a C++ Program to convert a lowercase alphabet to uppercase or vice-versa.

#include<iostream> #include<conio.h> using namespace std; int main()

{

char ch;

cout<<"Enter any Alphabet:"; cin>>ch;

if(ch>='a'&&ch<='z')

{

cout<<"\n\tYou have entered a lowercase alphabet"; ch=ch-32;

cout<<"\n\nThe uppercase alphabet is "<<ch;

}

else

{

cout<<"\n\tYou have entered an Uppercase alphabet"; ch=ch+32;

cout<<"\n\nThe lowercase alphabet is "<<ch;

}

return 0;

}

# Write a C++ Program to print three numbers in descending order

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a,b,c,big1,big2,big3; cout<<"Enter three numbers:"; cin>>a>>b>>c;

big1=a; if(b>big1) big1=b; else if(c>big1) big1=c; if(big1==a)

{

if(b>c)

{

big2=b; big3=c;

}

else

{

big2=c; big3=b;

}

}

else

{

if(big1==b) if(a>c)

{

big2=a; big3=c;

}

else

{

big2=c; big3=a;

}

else

{

if(a>b)

{

big2=a; big3=b;

}

else

{

big2=b; big3=a;

}

}

}

cout<<"\n\n\tNumbers in descending order \n\t\t";

cout<<big1<<" "<<big2<<" "<<big3; return 0; }

# Write C++ Program to find whether a square matrix is a) symmetric b) skew symmetric c) none of two.

# include <stdio.h> #include<iostream> # include <conio.h> using namespace std; int main( )

{

int a[10][10],i,j,m,n,c=0,c1=0; cout<<"enter the array size"; cin>>n;

cout<<"enter the elements"; for(i=1;i<=m;i++) for(j=1;j<=n;j++)

cin>>a[i][j]; for(i=1;i<=m;i++) for(j=1;j<=n;j++)

{

if(a[i][j]==a[j][i]) c=1;

else if(a[i][j]==a[j][i]) c1=1;

}

cout<<"the given matrix is \n"; for(i=1;i<=m;i++)

{

for(j=1;j<=n;j++) cout<<"%4d"<<a[i][j]; cout<<"\n";

}

if(c==0)

cout<<"the given matrix is symmetric"; else

if(c1==0)

cout<<"the matrix is skew symmetric"; else

cout<<"none of two"; return 0;

}

# Write a C++ Program to calculate roots of quadratic equation ax^2+bx+c=0

#include<iostream> #include<conio.h>

#include<math.h> //to claculate square root using namespace std;

int main()

{

float root1,root2,a,b,c,d;

cout<<"Quadratic Equation is ax^2=bx+c=0"; cout<<" Enter values of a,b and c:"; cin>>a>>b>>c;

d=(b\*b)-(4\*a\*c); if(d>0)

{

cout<<"\nTwo real and distinct roots"; root1=(-b+sqrt(d))/(2\*a);

root2=(-b-sqrt(d))/(2\*a);

cout<<"\nRoots are "<<root1<<" and "<<root2;

}

else if(d==0)

{

cout<<"\nTwo real and equal roots"; root1=root2=-b/(2\*a);

cout<<"\nRoots are "<<root1<<" and "<<root2;

}

else

cout<<"\nRoots are COMPLEX and IMAGINARY !!!";

return 0;

}

# Write a C++ Program to find quotient and remainder of two numbers.

#include<iostream> #include<conio.h> using namespace std;

int main()

{

int a,b,q,r;

cout<<"Enter two numbers:"; cin>>a>>b;

if(a>b)

{

q=a/b; r=a%b;

cout<<"\nQuotient="<<q; cout<<"\nRemainder="<<r;

}

else

cout<<"\nFirst no. should be greater than second no !!!";

return 0;

}

# Write a C++ Program to Find LCM and HCF of two numbers

#include<iostream> #include<conio.h> using namespace std; int main()

{

int a,b,hcf,lcm,max,min,r; cout<<"Enter two numbers:"; cin>>a>>b;

if(a>b)

{

max=a; min=b;

}

else if(b>a)

{

max=b; min=a;

}

if(a==b) hcf=a; else

{

do

{

r=max%min; max=min; min=r;

}while(r!=0); hcf=max;

}

lcm=(a\*b)/hcf; cout<<"\nLCM="<<lcm<<"\nHCF="<<hcf; return 0;

}

# Write a c++ Program to accept a number and check the given number is Armstrong or not.

#include<iostream> # include <stdio.h> # include <conio.h>

using namespace std; int main( )

{

int n, a, b, c, d;

cout<<" Enter a Three Digit Number: "; cin>>n;

a=n/100; b=((n/10)%10); c=n%10;

d=a\*a\*a\*+b\*b\*b +c\*c\*c; if (n==d)

cout<<"The Given Number is Armstrong number"; else

cout<< "The Given Number is Not Armstrong number"; return 0;

}

# Write C++ Program to Count Occurrence of a Word in a Text File

#include<iostream> #include<fstream.h> #include<string.h> using namespace std;

int main()

{

ifstream fin("test.txt"); //opening text file int count=0;

char ch[20],c[20];

cout<<"Enter a word to count:"; gets(c);

while(fin)

{

fin>>ch; if(strcmp(ch,c)==0) count++;

}

cout<<"Occurrence="<<count<<"\n"; fin.close(); //closing file

return 0;

}

# Write C++ Program to Count no. of alphabates, digits and spaces present in a file test.TXT

#include<fstream.h> #include<conio.h> int main()

{

ifstream fin("test.txt"); char ch;

int i,a=0,s=0,d=0; while(fin)

{

fin.get(ch); i=ch;

if(i>63&&i<91||i>96&&i<123)

a++;

else

}

if(ch==' ') else

s++;

if(i>47&&i<58)

d++;

cout<<"No. OF Alphabates:"<<a; cout<<"\nNo. Of Digits:"<<d; cout<<"\nNo. Of Spaces:"<<s; return 0;

}

# Write C++ Program to read from a text file and than write in another text file.

#include<fstream.h> #include<iostream> using namespace std; int main()

{

ofstream fout("sare1.txt"); //create a file to write ifstream fin("sare1.txt");

fout<<"Hello !!";

fout.close(); //closing the file fout.open("sare2.txt"); //create file to write char ch;

while(fin) //loop wiill run till end of file

{

fin>>ch; //reading data from file fout<<ch; //writing data to file

}

fin.close();

fout.close(); return 0;

}

# Write C++ Program to Count Number of Words, Lines and Total Size of a Text File

#include<iostream.h> #include<fstream.h> int main()

{

ifstream fin("story.txt"); //opening text file

int line=1,word=1,size; //will not count first word and last line so initial value is 1

char ch;

fin.seekg(0,ios::end); //bring file pointer position to end of file

size=fin.tellg(); //count number of bytes till current postion for file pointer

fin.seekg(0,ios::beg); //bring position of file pointer to begining of file

while(fin)

{

fin.get(ch);

if(ch==' '||ch=='\n') word++; if(ch=='\n')

line++;

}

cout<<"Lines="<<line<<"\nWords="<<word<<"\nSize="<<size<<"\n"; fin.close(); //closing file

return 0;

}

# Write C++ Program to Remove Spaces from String

#include<iostream> #include<stdio.h> using namespace std; int main()

{

int i,j=0; char str[30];

cout<<"Enter a String:\n"; gets(str); for(i=0;str[i]!='\0';++i)

{

if(str[i]!=' ')

str[j++]=str[i];

}

str[j]='\0';

cout<<"\nString After Removing Spaces:\n"<<str; return 0;

}

# Write C++ program for overloading binary operators, addition, subtraction, multiplication, division and comparison

#include<iostream> #include<conio.h> #include<process.h> using namespace std; class demo

{

float a,b; public:

void getdata(); void display();

demo operator +(demo); demo operator -(demo); demo operator \*(demo); demo operator /(demo); int operator ==(demo);

};

void demo::getdata()

{

cout<<"Enter values of a and b:"; cin>>a>>b;

}

void demo::display()

{

cout<<"a="<<a<<"\tb="<<b;

}

demo demo::operator +(demo d1)

{

demo d2; d2.a=a+d1.a; d2.b=b+d1.b; return d2;

}

demo demo::operator -(demo d1)

{

demo d2; d2.a=a-d1.a;

d2.b=b-d1.b; return d2;

}

demo demo::operator \*(demo d1)

{

demo d2; d2.a=a\*d1.a; d2.b=b\*d1.b; return d2;

}

demo demo::operator /(demo d1)

{

demo d2; d2.a=a/d1.a; d2.b=b/d1.b; return d2;

}

int demo::operator ==(demo d1)

{

if((a==d1.a)&&(b==d1.b))

return 1;

else

}

return 0;

int main()

{

int ch;

demo d1,d2,d3;

cout<<"First Object:\n"; d1.getdata(); cout<<"\nSecond Object:\n"; d2.getdata();

cout<<"\n\nOperator Overloadig Menu";

cout<<"\n\n1.Addition\n2.Subtraction\n3.Multiplication\n4.Division\n5.Compariso cout<<"\n\nEnter your choice(1-6):";

cin>>ch;

switch(ch)

{

case 1: d3=d1+d2;

cout<<"\nThird Object:\n"; d3.display();

break;

case 2: d3=d1-d2;

cout<<"\nThird Object:\n"; d3.display();

break;

case 3: d3=d1\*d2;

cout<<"\nThird Object:\n"; d3.display();

break;

case 4: d3=d1/d2;

cout<<"\nThird Object:\n"; d3.display();

break;

Equal";

case 5: if(d1==d2)

else

break; case 6: exit(0);

break;

cout<<"\nObjects are Equal"; cout<<"\nObjects are Not

exit";

}

getch();

default: cout<<"Wrong Choice!!!Press any key to getch();

return 0; }

# Write C++ program to swap two numbers using class

#include<iostream> #include<conio.h> using namespace std; class swap

{

int a,b; public:

void getdata(); void swapv(); void display();

};

void swap::getdata()

{

cout<<"Enter two numbers:"; cin>>a>>b;

}

void swap::swapv()

{

a=a+b; b=a-b;

a=a-b;

}

void swap::display()

{

cout<<"a="<<a<<"\tb="<<b;

}

int main()

{

swap s; s.getdata();

cout<<"\nBefore swap:\n"; s.display();

s.swapv(); cout<<"\n\nAfter swap:\n"; s.display();

getch(); return 0;

}

# Write C++ program to add, subtract, multiply and divide two complex numbers using structures.

#include<iostream> #include<conio.h> #include<math.h> using namespace std; struct complex

{

float rel; float img;

}s1,s2;

int main()

{

float a,b;

cout<<"Enter real and imaginary part of 1st complex number:"; cin>>s1.rel>>s1.img;

cout<<"Enter real and imaginary part of 2nd complex number:"; cin>>s2.rel>>s2.img;

//Addition a=(s1.rel)+(s2.rel);

b=(s1.img)+(s2.img);

cout<<"\nAddition: "<<"("<<a<<")"<<"+"<<"("<<b<<")"<<"i";

//Subtraction a=(s1.rel)-(s2.rel);

b=(s1.img)-(s2.img);

cout<<"\nSubtraction: "<<"("<<a<<")"<<"+"<<"("<<b<<")"<<"i";

//Multiplication

a=((s1.rel)\*(s2.rel))-((s1.img)\*(s2.img));

b=((s1.rel)\*(s2.img))+((s2.rel)\*(s1.img));

cout<<"\nMultiplication: "<<"("<<a<<")"<<"+"<<"("<<b<<")"<<"i";

//Division a=(((s1.rel)\*(s2.rel))+((s1.img)\*

(s2.img)))/(pow(s2.rel,2)+pow(s2.img,2));

b=(((s2.rel)\*(s1.img))-((s1.rel)\*(s2.img)))/(pow(s2.rel,2)+pow(s2.img,2)); cout<<"\nDivision: "<<"("<<a<<")"<<"+"<<"("<<b<<")"<<"i";

getch();

}

# Write C++ Program to Compare Two Strings Using Pointers

#include<iostream> #include<stdio.h> using namespace std; int main()

{

char str1[50],str2[50];

int str\_cmp(char\*,char\*); cout<<"Enter first string:"; gets(str1);

cout<<"Enter second string:"; gets(str2);

if(str\_cmp(str1,str2)) cout<<"\nStrings are equal";

else

cout<<"\nStrings are not equal";

return 0;

}

int str\_cmp(char \*s1,char \*s2)

{

while(\*s1==\*s2)

{

if(\*s1=='\0'||\*s2=='\0') break;

s1++; s2++;

}

if(\*s1=='\0'&&\*s2=='\0') return 1;

return 0;

}

# Write C++ program to perform a PUSH operation on a dynamically allocated stack

#include<iostream> #include<conio.h> using namespace std; struct Node

{

int data; Node \*next;

}\*top,\*p;

Node\* newnode(int x)

{

p=new Node; p->data=x;

* 1. >next=NULL; return(p);

}

void push(Node \*q)

{

if(top==NULL) top=q;

else

{

* 1. >next=top;

top=q;

}

}

void showstack(Node \*q)

{

while(q!=NULL)

{

cout<<q->data<<" "; q=q->next;

}

}

int main()

{

int x;

char ch='y'; Node \*nptr;

while(ch=='y'||ch=='Y')

{

cout<<"\nEnter the data(int type):"; cin>>x;

nptr=newnode(x); push(nptr); cout<<"\nThe stack is:"; showstack(top);

cout<<"\n\nWnat push more(y/n):"; cin>>ch;

}

return 0;

}

# Write C++ Program for Linked List Representation of Linear Queue

#include<iostream> #include<stdlib.h> using namespace std; using namespace std;

struct node

{

int data;

struct node \*next;

}\*front=NULL,\*rear,\*temp;

void ins()

{

temp=new node; cout<<"Enter data:"; cin>>temp->data; temp->next=NULL;

if(front==NULL)

front=rear=temp;

else

{

rear->next=temp; rear=temp;

}

void del()

{

}

cout<<"Node has been inserted\n";

if(front==NULL)

cout<<"Queue is empty\n";

else

{

}

}

temp=front; front=front->next;

cout<<"Deleted node is "<<temp->data<<"\n"; delete(temp);

void dis()

{

if(front==NULL)

cout<<"Queue is empty\n";

else

{

temp=front;

while(temp->next!=NULL)

{

cout<<temp->data<<"->"; temp=temp->next;

}

}

main()

{

}

int ch; while(1)

{

cout<<temp->data;

cout<<"\n\*\*\* Menu \*\*\*"

<<"\n1.Insert\n2.Delete\n3.Display\n4.Exit";

cout<<"\n\nEnter your choice(1-4):"; cin>>ch;

cout<<"\n";

switch(ch)

{

case 1: ins();

break; case 2: del();

break;

}

}

return 0;

}

case 3: dis();

break; case 4: exit(0);

break;

default: cout<<"Wrong Choice!!!";