1.write a program to display that it is your first c class.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

printf(" \t\t\*\* THIS IS MY FIRST C CLASS \*\*");

getch();

}

\*\* THIS IS MY FIRST C CLASS \*\*

2.Write a program to convert temperature from Fahrenheit to Celsius.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

float f,c;

printf("Enter temperature in Fahrenheit-");

scanf("%f%",&f);

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

printf("The temperature in Celsius is-%f",c);

getch();

}

Enter temperature in Fahrenheit- 200

The temperature in Celsius is-93.33336

3.write the program to calculate the area and perimeter of a circle.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int x;

float area,perimeter;

printf("Enter the radius of the circle-");

scanf("%d",&x);

area=3.14\*x\*x;

perimeter=2\*3.14\*x;

printf("The area of the circle =%f",area);

printf("\nThe perimeter of the circle is =%f",perimeter);

getch();

}

Enter the radius of the circle-12

The area of the circle =452.160004

The perimeter of the circle is =75.360001

4.write a program to swap the value of two integers.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int a,b,c;

printf("Enter two numbers:-\n");

scanf("%d%d",&a,&b);

c=a;

a=b;

b=c;

printf("The swapped value of a=%d and b=%d",a,b);

getch();

}

Enter two numbers:-

12

13

The swapped value of a=13 and b=12

5.write a program to do addition ,subtraction, multiplication and division of two integers.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int y,x,sum,sub;

float multiply,divide;

printf("Enter the two numbers-");

scanf("%d%d",&x,&y);

sum=x+y;

sub=x-y;

multiply=x\*y;

divide=x/y;

printf("The result of addition=%d",sum);

printf("\nThe result of subtraction=%d",sub);

printf("\nThe result of the multiplication is=%f",multiply);

printf("\nThe result of division is=%f",divide);

getch();

}

Enter two numbers-12

13

The result of addition=25

The result subtraction=-1

The result of multiplication=156.000000

The result of division=0.000000

6.write a program to calculate the sum of consecutive numbers.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int n,sum=0,i;

printf("Enter the value of n=");

scanf("%d",&n);

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

{

sum=sum+i;

}

printf("The result of consecutive addition of numbers up to %d=%d",n,sum);

getch();

}

Enter the value of x=90

The result of consecutive addition of numbers up to 90=4095

7.write a program to calculate the factorial of given number.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int num,i;

float f=1;

printf("Enter the number-");

scanf("%d",&num);

if(num>0)

{

for(i=num;i>1;i--)

{

f=f\*i;

}

printf("The value of factorial is=%f",f);

}

else

printf("The value of factorial=%f",f);

getch();}

Enter the number-15

The value of factorial is=1307674279936.000000

8.write a program to display Fibonacci series .

#include<stdio.h>

#include<conio.h>

void main()

{ clrscr();

int a,x,i=0,j=1,sum;

printf("Enter the value of x=");

scanf("%d",&x);

printf("The fibonacci series :-\n%d\n\n%d",i,j);

for(a=2;a<=x;a++)

{

sum=i+j;

printf("\n\n%d",sum);

i=j;

j=sum;

}getch();}

Enter the value of x=6

The fibonacci series :-

0

1

1

2

3

5

9.write a program to display the following:

1

2 3

3 4 5

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int i,j,r,x=1;

printf("Enter the number of rows-");

scanf("%d",&r);

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

{

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

{

printf("%d ",x);

x++;

}

printf("\n");

}

getch();

}

Enter the number of rows-4

1

2 3

4 5 6

7 8 9 10

10.write a program to display the following:

\*

\* \*

\* \* \*

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int i,j,k,row;

printf("Enter the number of rows ");

scanf("%d",&row);

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

{

for(k=0;k<=row-i;k++)

{

printf(" ");

}

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

{

printf(" \*");

}

printf("\n");

}

getch();

}

Enter the number of rows 6

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

\* \* \* \* \* \*

11.write a program to convert the entered binary number into decimal number.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int rem,decimal=0,bnum1,bnum,base=1;

printf("Enter the binary no-");

scanf("%d",&bnum);

bnum1=bnum;

while(bnum>0)

{

rem=bnum%10;

decimal=decimal+base\*rem;

base=base\*2;

bnum=bnum/10;

}

printf("The corresponding decimal number of %d=%d",bnum1,decimal);

getch();

}

Enter the binary no-10110

The corresponding decimal number of 10110=22

12. write a program to display the following:

\*

\* \*

\* \* \*

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int i,j,r;

printf("Enter the number of rows-");

scanf("%d",&r);

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

{

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

{

printf("\* ");

}

printf("\n");

}

getch();

}

Enter the number of rows-8

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

\* \* \* \* \* \*

\* \* \* \* \* \* \*

\* \* \* \* \* \* \* \*

14.WAP to print pascal triangle.

#include<stdio.h>

#include<conio.h>

void main()

{

int r,i,j,k,coef=1;

clrscr();

printf("enter the number of rows -");

scanf("%d",&r);

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

{

for(k=r-i-1;k>0;k--)

{

printf(" ");

}

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

{

if((j==0)||(i==0))

{ coef=1;

}

else

{coef=coef\*(i-j+1)/j;

}

printf("%d ",coef);

}

printf("\n");

}

getch();

}

enter the number of rows -4

1

1 1

1 2 1

1 3 3 1

15.WAP find sum of all odd and even numbers up to n.

#include<stdio.h>

#include<conio.h>

void main()

{ clrscr();

int n,i;

float s1=0,s2=0;

printf("Enter the value of n-");

scanf("%d",&n);

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

{ if((i%2)==0)

s1=s1+i;

else

s2=s2+i; }

printf("The sum of even number is %f",s1);

printf("\nThe sum of odd numbers is %f",s2);

getch();

}

Enter the value of n-100

The sum of even number is 2550.000000

The sum of odd numbers is 2500.000000

16.WAP to display the greatest and the smallest element of given array.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

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

printf("Enter the no. of elements in the array-");

scanf("%d",&n);

printf("Enter the elements of the array-");

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

{

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

}

max=ar[0];

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

{

if(ar[i]>max)

max=ar[i];

}

printf("The maximum element of array is %d ",max);

min=ar[0];

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

{

if(ar[i]<min)

min=ar[i];

}

printf("\nThe minimum element of the array is %d ",min);

getch();

}

Enter the no. of elements in the array-7

Enter the elements of the array-2

31

19

24

49

62

17

The greatest element of array is 62

The smallest element of the array is 2

17.WAP to find an element if it is present in the array ,if yes than display its position.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int po,arr[100],item,n,x=0,i;

printf("Enter the item you want to search-");

scanf("%d",&item);

printf("Enter the no. of elements in the array-");

scanf("%d",&n);

printf("Enter the array elements -");

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

{

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

}

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

{

if(arr[i]==item)

{

po=i+1;

printf("Item-%d is found at position %d",item,po);

x++;

}

}

if(x==0)

{

printf("Item is not present in the array");

}

getch();

}

Enter the item you want to search-121

Enter the no. of elements in the array-8

Enter the array elements -1

90

78

43

52

79

121

83

Item-121 is found at position 7

18.WAP to find sum of two matrices.

#include<stdio.h>

#include<conio.h>

void main()

{

int n,m,i,j,m1[100][100],m2[100][100],sum[100][100];

clrscr();

printf("Enter the no. of rows and columns in the matrix-");

scanf("%d%d",&n,&m);

printf("Enter the elements of the first matrix-\n");

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

{

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

scanf("%d",&m1[i][j]);

}

printf("Enter the elements of the second matrix-\n");

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

{

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

scanf("%d",&m2[i][j]);

}

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

{

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

{

sum[i][j]=m1[i][j]+m2[i][j];

}

}

printf("The sum of the matrices-\n");

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

{

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

{

printf("%d\t",sum[i][j]);

}

printf("\n");

}

getch();

}

dffdffdfdfjkdjkvvklvn

Enter the no. of rows and columns in the matrix-3

2

Enter the elements of the first matrix-

1

2

4

6

4

7

Enter the elements of the second matrix-

1

4

8

4

56

4

The sum of the matrices-

2 6

12 10

60 11

19.WAP to find the transpose of a matrix.

#include<stdio.h>

#include<conio.h>

void main()

{

clrscr();

int a[100][100],i,j,n;

printf("Enter the no. of rows and columns of the matrix-");

scanf("%d",&n);

printf("Enter the elements of the matrix-\n");

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

{

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

{

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

}

}

printf("Original Matrix=\n");

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

{

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

{

printf("%d\t",a[i][j]);

}

printf("\n");

}

printf("Transpose of matrix =\n");

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

{

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

{

printf("%d\t",a[j][i]);

}

printf("\n");

}

getch();

}

Enter the no. of rows and columns of the matrix-3

Enter the elements of the matrix-

1

2

3

4

5

6

6

7

8

Original Matrix=

1 2 3

4 5 6

6 7 8

Transpose of matrix =

1 4 6

2 5 7

3 6 8

20.WAP to print lower triangle of a matrix.

#include<stdio.h>

#include<conio.h>

void main()

{

int a[100][100],i,j,n,m;

clrscr();

printf("Enter the no. of row and columns in the matrix-\n");

scanf("%d%d",&n,&m);

printf("Enter the elements of the matrix-\n");

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

{

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

{

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

}

}

printf("The matrix =\n");

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

{

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

{

printf("%d\t",a[i][j]);

}

printf("\n");

}

printf("The lower Triangle of this matrix=\n");

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

{

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

{

if(i>=j)

printf("%d\t",a[i][j]);

}

printf("\n");

}

getch();

}

Enter the no. of row and columns in the matrix-

3

3

Enter the elements of the matrix-

1

2

3

4

5

6

7

8

9

The matrix =

1 2 3

4 5 6

7 8 9

The lower Triangle of this matrix=

1

4 5

7 8 9

21.WAP to print upper triangle of a matrix.

#include<stdio.h>

#include<conio.h>

void main()

{

int a[100][100],i,j,n,m;

clrscr();

printf("Enter the no. of row and columns in the matrix-\n");

scanf("%d%d",&n,&m);

printf("Enter the elements of the matrix-\n");

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

{

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

{

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

}

}

printf("The matrix =\n");

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

{

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

{

printf("%d\t",a[i][j]);

}

printf("\n");

}

printf("The upper Triangle of this matrix=\n");

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

{

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

{

if(i<=j)

printf("%d\t",a[i][j]);

else

printf("\t");

}

printf("\n");

}

getch();

}

Enter the no. of row and columns in the matrix-

3

3

Enter the elements of the matrix-

1

2

3

4

5

6

7

8

9

The matrix =

1 2 3

4 5 6

7 8 9

The upper Triangle of this matrix=

1 2 3

5 6

9

22.WAP to multiply two matrices.

#include<stdio.h>

#include<conio.h>

void main()

{

int m1[100][100],m2[100][100],m3[100][100],r1,r2,c1,c2,i,j,k;

clrscr();

printf("Enter the no. of rows and columns in the first matrix-\n");

scanf("%d%d",&r1,&c1);

printf("Enter the no. of rows and columns in the second matrix-\n");

scanf("%d%d",&r2,&c2);

if(c1!=r2)

printf("Multiplication of matrix is not possible");

else

{

printf("Enter the elements of first matrix-\n");

for(i=0;i<r1;i++)

{

for(j=0;j<c1;j++)

scanf("%d",&m1[i][j]);

}

printf("Enter the elemnts of the second matrix-\n");

for(i=0;i<r2;i++)

{

for(j=0;j<c2;j++)

scanf("%d",&m2[i][j]);

}

for(i=0;i<r1;i++)

{

for(j=0;j<c2;j++)

m3[i][j]=0;

}

for(i=0;i<r1;i++)

{

for(j=0;j<c2;j++)

{

for(k=0;k<c1;k++)

{

m3[i][j]=m3[i][j]+m1[i][k]\*m2[k][j];

}

}

}

printf("The first matrix=\n");

for(i=0;i<r1;i++)

{

for(j=0;j<c1;j++)

{

printf("%d\t",m1[i][j]);

}

printf("\n");

}

printf("The second matrix=\n");

for(i=0;i<r2;i++)

{

for(j=0;j<c2;j++)

{

printf("%d\t",m2[i][j]);

}

printf("\n");

}

printf("The matrix multiplication=\n");

for(i=0;i<r1;i++)

{

for(j=0;j<c2;j++)

{

printf("%d\t",m3[i][j]);

}

printf("\n");

}

}

getch();

}

Enter the no. of rows and columns in first matrix-

2

3

Enter the no. of rows and columns in second matrix-

3

4

Enter the elements of the first matrix-

1

2

5

6

7

8

Enter the elements of the second matrix-

2

3

45

7

12

34

4

5

1

8

0

7

The first matrix=

1 2 5

6 7 8

The second matrix=

2 3 45 7

12 34 4 5

1 8 0 7

The matrix multiplication=

31 111 53 52

104 320 298 133

23.WAP find length of a string without using any library function.

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

clrscr();

char string[100];

int i=0,c=0;

printf("Enter a string -");

gets(string);

while(string[i]!='\0')

{

c++;

i++;

}

printf("The size of the string = %d",c);

getch();

}

Enter a string -nikita chand

The size of the string = 12

24.WAP to find the no. of vowels and consonants in a given string.

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

clrscr();

int i,c=0,v=0;

char a[100];

printf("Enter the string-");

gets(a);

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

{

if((a[i]=='a')||(a[i]=='e')||(a[i]=='i')||(a[i]=='o')||(a[i]=='u'))

v++;

else

c++;

}

printf("The no. of vowels in the string=%d",v);

printf("\nThe no. of consonants in the string=%d",c);

getch();

}

Enter the string-nikita chand

The no. of vowels in the string=4

The no. of consonants in the string=8

25.WAP to count the no. of words in a string.

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

clrscr();

char str[100];

int i,c=0;

printf("Enter the string-");

gets(str);

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

{

if((str[i]==' ')||(str[i]=='\t'))

{

c++;

}

}

printf("\nThe no. of words in the string are=%d",c+1);

getch();

}

Enter the string-My name is nikita chand

The no. of words in the string are=5

26.WAP to sort a st

27.WAP to find the factorial of a function using function.

#include<stdio.h>

#include<conio.h>

int fact(int);

void main()

{

int n,result;

clrscr();

printf("Enter a no. to calculate factorial-");

scanf("%d",&n);

result=fact(n);

printf("The factorial of %d=%d",n,result);

getch();

}

int fact(int n)

{

int fact=1,i;

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

{

fact=fact\*i;

}

return fact;

}

Enter a no. to calculate factorial-6

The factorial of 6=720

28.WAP to find the factorial of a function using recursive function.

#include<stdio.h>

#include<conio.h>

int fact(int);

void main()

{

int n,result;

clrscr();

printf("Enter a no. to calculate factorial-");

scanf("%d",&n);

result=fact(n);

printf("The factorial of %d=%d",n,result);

getch();

}

int fact(int n)

{

if(n==0)

return 1;

else

return n\*fact(n-1);

}

Enter a no. to calculate factorial-6

The factorial of 6=720

29.WAP to print Fibonacci series using function.

#include<stdio.h>

#include<conio.h>

void fibonacci(int,int,int);

void main()

{ clrscr();

int n,a=0,b=1,sum;

printf("Enter the value of n=");

scanf("%d",&n);

fibonacci(a,b,n);

getch(); }

void fibonacci(int a,int b,int n)

{

int i,sum=0;

printf("The Fibonacci series-\n");

printf("%d\t%d",a,b);

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

{

sum=a+b;

printf("\t%d",sum);

a=b;

b=sum; }

}

Enter the value of n=4

The Fibonacci series-

0 1 1 2

30. WAP to print Fibonacci series using recursive function.

#include<stdio.h>

#include<conio.h>

int fibonacci(int);

void main()

{ clrscr();

int n,i;

printf("Enter the value of n=");

scanf("%d",&n);

printf("The Fibonacci series= ");

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

printf("\t%d",fibonacci(i));

getch();

}

int fibonacci(int n)

{

if(n==0)

return 0;

else if(n==1)

return 1;

else

return (fibonacci(n-1)+fibonacci(n-2));

}

Enter the value of n=5

The Fibonacci series= 0 1 1 2 3

31.WAP to sum of array elements by passing array in function.

#include<stdio.h>

#include<conio.h>

int sum(int[],int);

void main()

{ int a[100],n,i,result;

clrscr();

printf("Enter the no. of elements in the array-");

scanf("%d",&n);

printf("Enter the elements of the array-\n");

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

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

result=sum(a,n);

printf("The sum of array elements =%d",result);

getch();

}

int sum(int a[],int n)

{ int sum=0,i;

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

sum=sum+a[i];

return sum; }

Enter the no. of elements in the array-3

Enter the elements of the array-

1

4

9

The sum of array elements =14

32.WAP to search an item using binary search.

#include<stdio.h>

#include<conio.h>

int binary(int a[],int,int,int);

void main()

{

int a[100],n,i,item,beg,end,result;

clrscr();

printf("Enter the number of elements in the array-");

scanf("%d",&n);

printf("Enter array element-\n");

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

{

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

}

printf("Enter the element to be found-");

scanf("%d",&item);

beg=0;

end=n;

result=binary(a,beg,end,item);

if(result==-1)

printf("Item not found");

else

printf("Item found at-%d",result+1);

getch();

}

int binary(int a[],int beg,int end,int item)

{ int mid;

while(beg<end)

{

mid=(beg+end)/2;

if(a[mid]==item)

{ return mid;

}

if(a[mid]<item)

beg=mid+1;

else

end=mid-1;

}

return -1;

}

Enter the number of elements in the array-5

Enter array element-

1

9

40

100

4

Enter the element to be found-40

Item found at-3

33WAP to find an item using binary search with a recursive function.

#include<stdio.h>

#include<conio.h>

int binary(int a[],int,int,int);

void main()

{

int a[100],n,i,item,beg,end,result;

clrscr();

printf("Enter the number of elements in the array-");

scanf("%d",&n);

printf("Enter array element-\n");

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

{

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

}

printf("Enter the element to be found-");

scanf("%d",&item);

beg=0;

end=n;

result=binary(a,beg,end,item);

if(result==-1)

printf("Item not found");

else

printf("Item found at-%d",result+1);

getch();

}

int binary(int a[],int beg,int end,int item)

{

int mid ;

if(beg<end)

{

mid=(beg+end)/2;

}

if(a[mid]==item)

{ return mid;

}

if(a[mid]>item)

{ return binary(a,beg,mid-1,item);

}

else return binary(a,mid+1,end,item);

return -1;

}

Enter the number of elements in the array-5

Enter array element-

23

45

67

23

12

Enter the element to be found-67

Item found at-3

34.WAP to sort an array using bubble sort.

#include<stdio.h>

#include<conio.h>

void main()

{

int a[100],i,j,n,temp;

clrscr();

printf("Enter the no. of elements-");

scanf("%d",&n);

printf("Enter the elements of the array-\n");

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

{

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

}

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

{

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

{

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

{

temp=a[j];

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

a[j+1]=temp;

}

}

}

printf("The sorted array= ");

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

{

printf("%d\t",a[i]);

}

getch();

}

Enter the no. of elements-6

Enter the elements of the array-

2

4

5

678

3

42

The sorted array= 2 3 4 5 42 678