- C program to find area of a triangle if base and height are given –

CODE

```
#include<stdio.h>
int main()
{ int a,b,c;
 Printf("enter base=",a);
 scanf("%d",&a);
 printf("enter height=",b);
 scanf("%d",&b);
 c=(a*b)/2;
 printf(" area =%d unit",c);
 return 0;
}
```

OUTPUT

```
enter base=5
enter height=12
area =30 unit
```

- C program to find all angles of a triangle if two angles are given-

CODE

```
#include<stdio.h>
int main()
{int A,B,C;
 printf("first angle of a tringle=");
 scanf("%d",&A);
 printf("second angle of a tringle=");
 scanf("%d",&B);
 C=180-(A+B);
 printf("third angle of a tringle=%d",C);
 return 0;
}
```

OUTPUT

```
first angle of a tringle=  45
second angle of a tringle= 55

third angle of a tringle=80
```

- C program to convert days in to years, weeks and days-

CODE

```
#include <stdio.h>
int main()
{
   int days, years, weeks;

   printf("enter days :");
       scanf("%d",&days);

   years = days/365;
   weeks = (days % 365)/7;
   printf("\t\t Years: %d\n", years);
   printf("\t\tWeeks: %d\n", weeks);

   return 0;
}
```

OUTPUT

```
enter days :1350
Years: 3
Weeks: 36
```

- C program to find power and square root of any number-

CODE

```
#include <stdio.h>
#include <math.h>
int main () {
        int n, p;
        printf("enter any number :");
        scanf("%d", &n);
        printf("enter power of number :");
        scanf("%d", &p);
        int a = pow(n, p);
        float b = pow(n, 0.5);
        printf("  \t  number = %d    \n   \t  root = %f", a, b);
        return 0;
}
```

OUTPUT

```
enter any number :16
enter power of number :2
   number = 256
    root = 4.000000
```

- C program to calculate total, average and percentage and grades of five subject-

CODE

```
#include<stdio.h>
int main()
{       float A,B,C,D,E,F,G,H;
        printf("Numbers in MATHS=");
        scanf("%f",&A);
        printf("Numbers in PHYSICS=");
        scanf("%f",&B);
        printf("Numbers in CHEMISTRY=");
        scanf("%f",&C);
        printf("Numbers in ENGLISH=");
        scanf("%f",&D);
        printf("Numbers in HINDI=");
        scanf("%f",&E);
        F=A+B+C+D+E;
        printf("TOTAL NO.=%f\n",F);
        G=(A+B+C+D+E)*100/500;
        printf("PERCENTAGE=%f\n",G);
        H=(A+B+C+D+E)/5;
        printf("AVERAGE NO.=%f\n",H);
        if (F >450)
```

```
        { printf(" GRADE = A");
          }
    else
    {  if ( 350<F>450)
         { printf(" GRADE = B");
                }
          else
          { printf(" GRADE = C");
          }
        }
        'return0';
}
```

OUTPUT

```
Numbers in MATHS=96
Numbers in PHYSICS=95
Numbers in CHEMISTRY=90
Numbers in ENGLISH=90
Numbers in HINDI=93
TOTAL NO.=464.000000
PERCENTAGE=92.800003
AVERAGE NO.=92.800003
GRADE = A
```

- C program to check Least Significant Bit (LSB) of a number using bitwise operator-

CODE

```
#include<stdio.h>
int main ()
{ int x,a;
printf("enter any no.=");
scanf("%d",&x);
a=x&1;
if(a==1)
{ printf("set LSB");}
  else{ printf("unset");
}

return 0;
}
```

OUTPUT

```
enter any no.=15
set LSB
```

- C program to check MSB of a number using bitwise operator-

CODE

```
#include<stdio.h>
int main()
{ int x,a,m,b;
 printf("enter any no.=");
 scanf("%d",&x);
 a=sizeof(int)*8;
 b=1<<(a-1);
 m=b&x;
 if(m)
 {printf("set MSB");
 }
 else{ printf("unset");
 }
 return 0;

}
```

OUTPUT

```
enter any no.=-15
set MSB
```

C program to swap two numbers USING 3RD VARIABLE -

CODE

```
#include<stdio.h>
int main()
{ int a,b,c;
  printf("enter number=",a);
  scanf("%d",&a);
  printf("enter number=",b);
  scanf("%d",&b);
  printf("the number is =%d%d\n",a,b);
  c=a;
  a=b;
  b=c;
  printf("after swaping the number is=%d%d",a,b);
  return 0;
}
```

OUTPUT

```
enter number=8
enter number=6
the number is =86
after swaping the number is=68
```

- program to swap two numbers WITHOUT USING 3RD VARIABLE-

CODE

```
#include<stdio.h>
int main()
{int a,b;
printf("enter number=");
scanf("%d",&a);
printf("enter number=");
scanf("%d",&b);
 printf("\n value before swapping a=%d    and    b=%d\n",a,b);
 a=a+b;
 b=a-b;
 a=a-b;
 printf("after swaping first no. is:%d \t second no. is :%d\n",a,b);
 printf(" number is :%d%d",a,b);
 'return0';      }
```

OUTPUT

enter number=5

enter number=4

value before swapping a=5   and   b=4

after swaping first no. is:4   second no. is :5   number is :45

- C program to find maximum between three numbers using conditional operator AND Ternary Operator-

CODE

```
# include <stdio.h>
 int main()
{  int a, b, c, big ;
   printf("Enter three numbers : ") ;
    scanf("%d",&a) ;
    printf("Enter three numbers : ") ;
    scanf("%d",&b) ;
    printf("Enter three numbers : ") ;
    scanf("%d",&c) ;
   big = a > b ? (a > c ? a : c) : (b > c ? b : c) ;

    printf("\nThe biggest number is : %d", big) ;
       return 0;
}
```

OUTPUT

```
Enter three numbers : 5
Enter three numbers : 2
Enter three numbers : 9
The biggest number is : 9
```

- C program to check alphabet, digit or special character using Conditional operator-

CODE

```
#include <stdio.h>
int main()
{ char character;
   printf("Enter any character: ");
   scanf("%c", &character);
  if((character >= 'a' && character <= 'z') || (character >= 'A' && character <= 'Z'))
   {    printf("\n  '%c' is alphabet", character);
   }
   else if(character >= '0' && character <= '9')
   {   printf("\n  '%c' is digit", character);
   }
   else
   {    printf("\n  '%c' is special character", character);
   }
  return 0;     }
```

OUTPUT

```
Enter any character: #
 '#' is special character
```

- C program to check vowel or consonant using switch case-

CODE

```
#include<stdio.h>
int main ()
{ char C ;
  printf("enter any character =");
  scanf ("%c",&C);
  switch (C)
  { case 'a':
        printf(" vowel");
        break ;
       case 'e':
        printf(" vowel");
        break ;
       case 'i':
        printf(" vowel");
        break ;
    case 'o':
        printf(" vowel");
        break ;
```

```
        case 'u':
         printf(" vowel");
         break ;

         default:
         printf(" consonant ");
  }
  return 0;
}
```

OUTPUT

```
enter any character = A
 consonant
```

- C program to check positive negative or zero using switch case-

CODE

```
#include<stdio.h>
int main()
{       int a;
        printf("Enter any Number: ");
        scanf("%d",&a);
    switch(a > 0)
        {       case 1 : printf("\n  Number is Positive");
                                break;
        case 0 : if(a < 0)
                                {       printf("\n  Number is Negative");     }
                                else
                                {       printf("\n  Number is Zero");
                                }
                                break;
        }
return 0;       }
```

OUTPUT

```
Enter any Number: -8
Number is Negative
```

C program to print all natural numbers AND sum of it from 1 to n-

CODE

```
#include<stdio.h>
int main ()
{ int i,j,n,sum=0;
   printf("enter last number of series :");
   scanf ("%d",&n);
   printf("\n\n");
    for (i=1;i<=n;i++)
    { printf("%d\t",i);
    }
    for (i=1;i<=n;i++)
    {   sum =sum + i;
    }
    printf ("\n\n   sum of this series is : %d",sum );
   return 0;
}
```

OUTPUT

```
enter last number of series :10
1    2    3    4    5    6    7    8    9    10
sum of this series is : 55
```

- C program to print all even numbers AND sum of it from 1 to n-

CODE

```
#include<stdio.h>
int main ()
{ int i,j,n,sum=0;
  printf("enter last number of series :");
  scanf ("%d",&n);
  printf("\n\n");
   for (i=1;i<=n;i++)
   { if ( i%2==0)
       {
       printf("%d\t",i);
       sum =sum + i;
   }  }
    printf ("\n\n   sum of this series is : %d",sum );
  return 0;
}
```

OUTPUT

```
enter last number of series :20

2    4    6    8    10    12    14    16    18    20

sum of this series is : 110
```

- C program to print multiplication table of a number-

CODE

```
#include <stdio.h>
int main() {
 int n, i;
 printf("Enter an integer: ");
 scanf("%d", &n);
 for (i = 1; i <= 10; ++i) {
  printf("%d * %d = %d \n", n, i, n * i);
 }
 return 0;     }
```

OUTPUT

```
Enter an integer: 15
15 * 1 = 15
15 * 2 = 30
15 * 3 = 45
15 * 4 = 60
15 * 5 = 75
15 * 6 = 90
15 * 7 = 105
15 * 8 = 120
15 * 9 = 135
```

15 * 10 = 150

- C program to calculate factorial of a number-

CODE

```
#include<stdio.h>
int factorial(int n)
{ int i,c=1;
 for ( i=1;i<=n;i++ )
  {  c=c*i;
  }
  printf("factorial of %d is ::::%d",n,c);
  }
int main()
{ int a;
  printf("enter any number : ");
  scanf("%d",&a);

   factorial(a);

   return 0;
}
```

OUTPUT

enter any number : 5

factorial of 5 is ::::120

- C program to check whether a number is palindrome or not-

CODE

```
#include<stdio.h>
int main()     {
int n,r,sum=0,temp;
printf("enter the number=");
scanf("%d",&n);
temp=n;
while(n>0)
{
r=n%10;
sum=(sum*10)+r;
n=n/10;
}
if(temp==sum)
printf(" \n palindrome number ");
else
printf(" \n not palindrome");
return 0;    }
```

OUTUPUT

enter the number=151

palindrome number

- C program to print Fibonacci series up to n terms-

CODE

```
#include <stdio.h>
int main() {
  int i, n,a=0,b=1;
  printf("Enter the nth number for fibonacci series  : ");
  scanf("%d", &n);
  printf("%d\t%d\t", a, b);
  for (i = 1; i <=n-2; i++)
   {
    int c = a + b;
    printf("%d\t", c);
    a = b;
    b = c;
  }
  return 0;
}
```

OUTUPUT

```
Enter the nth number for fibonacci series  : 10
0       1       1       2       3       5       8       13      21      34
```

- C program to find power of any number using for loop-

CODE

```
#include<stdio.h>
int main()
{  int i,a,b, total =1 ;
 printf("enter any number :");
 scanf("%d",&a);
 printf("enter power of %d :",a);
 scanf("%d",&b);
for (i=0;i<b;i++)
 {  total = total*a;
 }
  printf(" %d to the power %d is : %d",a,b,total);
 return 0;
}
```

OUTPUT

```
enter any number :3
enter power of 3 :3
 3 to the power 3 is : 27
```

C program to print ASCII values of all characters-

CODE

```
#include<stdio.h>
int main()
{  int i ;
for (i='a';i<='z';i++)
 { printf(" ASCII value of %c is : %d\n",i,i);
 }
 return 0;
}
```

OUTPUT

```
ASCII value of a is : 97
 ASCII value of b is : 98
 ASCII value of c is : 99
 ASCII value of d is : 100
 ASCII value of e is : 101
 ASCII value of f is : 102
 ASCII value of g is : 103
 ASCII value of h is : 104
```

ASCII value of i is : 105

ASCII value of j is : 106

ASCII value of k is : 107

ASCII value of l is : 108

ASCII value of m is : 109

ASCII value of n is : 110

ASCII value of o is : 111

ASCII value of p is : 112

ASCII value of q is : 113

ASCII value of r is : 114

ASCII value of s is : 115

ASCII value of t is : 116

ASCII value of u is : 117

ASCII value of v is : 118

ASCII value of w is : 119

ASCII value of x is : 120

ASCII value of y is : 121

ASCII value of z is : 122

- C program to insert an element in array at specified position-

CODE

```
#include <stdio.h>
int main() {
	int n;
	printf("Enter the size of Array : ");
	scanf("%d", &n);
	int arr[n];
	for (int i = 0; i < n; i++) {
	printf("Enter the element: ");
	scanf("%d", &arr[i]);
	}
	printf("\n");
	for (int i = 0; i < n; i++) {
		printf("Array at %d is : %d\n", i, arr[i]);
	}
	printf("\n");
	int ins;
	int pos;
	printf("Enter the number you want and insert : ");
	scanf("%d", &ins);
	printf("Enter the position : ");
	scanf("%d", &pos);

	n++;

	arr[n];

	for (int i = n - 1; i > pos; i--) {

		arr[i] = arr[i - 1];
```

```
}
arr[pos] = ins;
printf("\n");
for (int i = 0; i < n; i++) {
        printf("Array at %d is : %d\n", i, arr[i]);   }
return 0;   }
```

OUTPUT

```
Enter the size of Array : 3
Enter the element: 5
Enter the element: 8
Enter the element: 6
Array at 0 is : 5
Array at 1 is : 8
Array at 2 is : 6
Enter the number you want and insert : 3
Enter the position : 2

Array at 0 is : 5
Array at 1 is : 8
Array at 2 is : 3
Array at 3 is :
```

- C program to delete an element in array at specified position-

CODE

```
#include <stdio.h>
int main() {
	int n;
	printf("Enter the size of Array : ");
	scanf("%d", &n);
	int arr[n];
	for (int i = 0; i < n; i++) {
		printf("Enter the element : ");
		scanf("%d", &arr[i]);
	}
	for (int i = 0; i < n; i++) {
		printf("Array at %d is : %d\n", i, arr[i]);
	}
	int pos;
	printf("Enter the element you want to delete : ");
	scanf("%d", &pos);
	int c;
	for (int i = 0; i < n; i++) {
		if (arr[i] == pos) {
			c = i;
			break;
		}
	}
	for (int i = c; i < n - 1; i++) {
```

```
            arr[i] = arr[i + 1];
        }
        n--;
        arr[n];
        for (int i = 0; i < n; i++) {
            printf("Array at %d is : %d\n", i, arr[i]);
        }
        return 0;
}
```

OUTPUT

```
Enter the size of Array : 3
Enter the element : 6
Enter the element : 7
Enter the element : 4
Array at 0 is : 6
Array at 1 is : 7
Array at 2 is : 4
Enter the element you want to delete : 7
Array at 0 is : 6
Array at 1 is : 4
```

- C program to check transpose matrix-

CODE

```
#include<stdio.h>
int main()
{ int i,j,a,b;
  printf("enter no. of rows :");
  scanf("%d",&a);
  printf("enter no. of coloum :");
  scanf("%d",&b);
  int arr[a][b];
  for(i=0;i<a;i++)
  { for(j=0;j<b;j++)
   { printf(" enter element :");
   scanf("%d",&arr[i][j]);
  }}
  for(i=0;i<a;i++)
  { for(j=0;j<b;j++)
   { printf("%d\t",arr[i][j]);
   }
   printf("\n");
  }
  printf("\n");
```

```
 for(i=0;i<b;i++)
  { for( j=0;j<a;j++)
    { printf ("%d\t",arr[j][i]);
        }
         printf("\n");
  }
 return 0;
 }
```

OUTPUT

```
enter no. of rows :3
enter no. of coloum :3
 enter element :6        enter element :8        enter element :4
 enter element :7        enter element :1        enter element :2
 enter element :6        enter element :3        enter element :1
6      8      4
7      1      2
6      3      1

6      7      6
8      1      3
4      2      1
```

- C program to check sparse matrix-

CODE

```
#include<stdio.h>
int main()
{ int i,j,a,b,zero =0;
 printf("enter no. of rows :");
 scanf("%d",&a);
 printf("enter no. of coloum :");
 scanf("%d",&b);
 int arr[a][b];
  int total = a*b;
  for (i=0;i<a;i++)
 { for(j=0;j<b;j++)
  { printf(" enter element :");
    scanf("%d",&arr[i][j]);
  }
 }
 for (i=0;i<a;i++)
 { for(j=0;j<b;j++)
  {   if(arr[i][j]==0)
    {  zero=zero+1;
    }
  }

 }

 if (zero>=(total/2))

  { printf("\n  \t sparse matix");

  }
```

```
  else
  { printf("\n   \t not sparse matrix");
  }
  return 0;
}
```

OUTPUT

```
enter no. of rows :3
enter no. of coloum :3
 enter element :1
 enter element :0
 enter element :0
 enter element :0
 enter element :2
 enter element :5
 enter element :7
 enter element :0
 enter element :0
       sparse matix
```

- All Operations of String-

CODE

```
#include <stdio.h>
#include <string.h>

int main() {
	char str[20] = "Blestar";
	char a[20] = "Omega";
	char d[20] = "Hello";
	int b = strlen(str);
	printf("Normal Strings -\n1)- str  : %s\n2)- a : %s\n3)- d : Hello\n\n", str, a, d);
	printf("String length of str is : %d\n", b);
	strcpy(str, d);
	printf("Copy String d to str : %s\n", str);
	strcat(str, a);
	printf("Adding String str and a : %s\n", str);
	strrev(d);
	printf("Reverse the String d : %s\n", d);
	int s = strcmp(str, d);
	printf("Compare String str and a : %d", s);
	return 0;
```

}

OUTPUT

Normal Strings -

1)- str : Blestar

2)- a : Omega

3)- d : Hello

String length of str is : 7

Copy String d to str : Hello

Adding String str and a : HelloOmega

Reverse the String d : olleH

Compare String str and a : -1

- C program to find diameter, circumference and area of a circle using functions-

CODE

```
#include <stdio.h>
void Circle(int r) {
        float Area = 3.14 * r * r;
        int Diam = 2 * r;
        float Circum = 2 * 3.14 * r;
        printf("The Area is : %f\nThe Diameter is : %d\nThe Circmumference is : %f\n", Area, Diam, Circum);
}
int main() {
        int r;
        printf("Enter the radius of a Circle : ");
        scanf("%d", &r);
        Circle(r);
        return 0;    }
```

OUTPUT

```
Enter the radius of a Circle : 4
The Area is : 50.240002
The Diameter is : 8
The Circmumference is : 25.120001
```

- C program to check prime, armstrong and perfect numbers using functions-

CODE

```
#include <stdio.h>
#include <math.h>
void toCheck(int n) {
	int count = 0;
	int b = n;
	for (int i = 1; b != 0; i++) {
		b /= 10;
		count++;
	}
	b = n;
	int a, c = 0;
	for (int i = 1; b != 0; i++) {
		a = b % 10;
		b /= 10;
		int p = pow(a, count);
		c = c + p;
	}
	if (c == n) {
		printf("The number is Armstrong\n");
```

```
    } else {
        printf("The number is Not Armstrong\n");
    }
    c = 0;
    for (int i = 1; i < n; i++) {
        if (n % i == 0) {
            c += i;
        }
}
    if (c == n) {
        printf("This is the Perfect number\n");
    } else {
        printf("This in Not the Perfect number\n");
    }
        for (int i = 2; i < n; i++) {
        if (n % i == 0) {
        printf("This is Not the Prime number\n");
        break;
        }
        if (i == n - 1) {
            printf("This is the Prime number\n");
            break;
```

```
            }
        }     }

int main() {
        int n;
        printf("Enter the number : ");
        scanf("%d", &n);
        toCheck(n);
        return 0;
}
```

OUTPUT

```
Enter the number : 6
The number is Armstrong
This is the Perfect number
This is Not the Prime number
```

- C program to add two number using pointers-

CODE

```
#include <stdio.h>

void Sum(int a, int b, int *sum) {
	*sum = a + b;
}

int main() {
	int a, b, sum;
	printf("Enter the two numbers : ");
	scanf("%d %d", &a, &b);
	Sum(a, b, &sum);
	printf("The Sum is : %d", sum);
	return 0;
}
```

OUTPUT

```
Enter the two numbers : 56 44
The Sum is : 100
```

- Swap 2 numbers using Call by Value AND Call by reference-

CODE

```
#include <stdio.h>

void value(int a, int b) {
	int c = a;
	a = b;
	b = c;
	printf("Swap using 'Call by Value' -\na = %d, b = %d\n\n", a, b);
}

void refrence(int *c, int *d) {
	int temp = *c;
	*c = *d;
	*d = temp;
}

int main() {
	int a = 3, b = 4;
	int c = 5, d = 6;
	printf("Here, a = %d, b = %d\nand, c = %d, d = %d\n\n",a, b, c, d);
	value(a, b);
	refrence(&c, &d);
	printf("Swap using 'Call by Refrence' -\nc = %d, d = %d", c, d);
```

```
    return 0;
}
```

OUTPUT

```
Here, a = 3, b = 4
and, c = 5, d = 6

Swap using 'Call by Value' -
a = 4, b = 3

Swap using 'Call by Refrence' -
c = 6, d = 5
```

- C program to print prime numbers between 1 to n-

CODE

```
#include <stdio.h>
int main() {
    int n;
    printf("Enter the last term of the series : ");
    scanf("%d", &n);
    printf("All prime number till %d are : \n", n);
    printf("2\t");
    for (int i = 3; i <= n; i++) {
        for (int j = 2; j < i; j++) {
            if (i % j == 0) {
                break;          }
            if (j == i - 1) {
                printf("%d\t",i);
                break;
            }   }     }
        return 0;    }
```

OUTPUT

```
Enter the last term of the series : 20
All prime number till 20 are :
```

2 3 5 7 11 13 17 19

- C program to print all Strong Numbers between 1 to n-

CODE

```
#include <stdio.h>
int main()
{
   int i, j, cur, lastDigit, end;
   long long fact, sum;
   printf("Enter upper limit: ");
   scanf("%d", &end);
   printf("All Strong numbers between 1 to %d are:\n", end);
   for(i=1; i<=end; i++)
   {
      cur = i;
      sum = 0;
      while(cur > 0)
      {
         fact = 1;
         lastDigit = cur % 10;
         for( j=1; j<=lastDigit; j++)
         {
            fact = fact * j;
```

```
            }
            sum += fact;
            cur /= 10;
        }
        if(sum == i)
        {
            printf("%d, ", i);
        }
    }
    return 0;
}
```

OUTPUT

```
Enter upper limit: 200
All Strong numbers between 1 to 200 are:
1, 2, 145,
```

C program to find sum of elements of array-

CODE

```
#include<stdio.h>
int main ()
{ int i,j,a,b,sum =0;
  printf("enter no. of row :");
  scanf ("%d",&a);
  printf("enter no. of coloum :");
  scanf("%d",&b);
  int arr[a][b];
  for(i=0;i<a;i++)
  { for(j=0;j<b;j++)
    {   printf("enter element :");
            scanf("%d",&arr[a][b]);
                sum =sum + arr[a][b];     }  }
    printf("the sum this array is :%d",sum);
   return 0; }
```

OUTPUT

```
enter no. of row :3
enter no. of coloum :2
enter element :7
enter element :8
enter element :5
enter element :1
enter element :6
enter element :2
the sum this array is :29
```

- C program to find HCF AND LCM of two numbers-

CODE

```
#include <stdio.h>
int main() {
  int a, b, i, j, t, hcf, lcm;
  printf("Enter two integers\n");
  scanf("%d%d", &i, &j);
  a = i;
  b = j;
  while (b != 0) {
    t = b;
    b = a % b;
    a = t;
  }
  hcf = a;
  lcm = (i*j)/hcf;
  printf("highest common factor of %d and %d = %d\n", i, j,
hcf);
  printf("Least common multiple of %d and %d = %d\n", i, j,
lcm);
  return 0;     }
```

OUTPUT

```
Enter two integers
18
12
highest common factor of 18 and 12 = 6
Least common multiple of 18 and 12 =36
```

C program to print all Perfect numbers between 1 to n-

CODE

```
#include <stdio.h>
int main()
{   int i, j, end, sum;
    printf("Enter last term : ");
    scanf("%d", &end);
    printf(" Perfect numbers between 1 to %d:\n", end);
    for(i=1; i<=end; i++)
    {    sum = 0;
        for(j=1; j<i; j++)
        {   if(i % j == 0)
            {   sum += j;
            }
        }
        if(sum == i)
        {
            printf("%d, ", i);
        }
    }
    return 0;
}
```

OUTPUT

```
Enter last term : 100
 Perfect numbers between 1 to 100:
6, 28,
```

- C program to search element in array using Linear Search-

CODE

```
#include<stdio.h>
int main()
{ int a[100],size,find,count=0;
 printf("enter the size: ");
 scanf("%d",&size);

 for (int i=0;i<size;i++)
 {printf("enter the elements:\n");
  scanf("\t%d",&a[i]);
 }
 printf("\n enter the element wants to find :");
 scanf("%d",&find);
 for (int i=0;i<size;i++)
  { if (a[i]==find)
  {    printf("\n\t\t find at index :%d",i);
        count++; }   }
  if (count==0)
  { printf("\n\t element not found");  }
  else
  { printf("\n\t\t element frequency of %d is %d ", find,count)
}   }
```

OUTPUT

```
enter the size: 5
enter the elements:1
enter the elements:2
enter the elements:2
enter the elements:7
enter the elements:9

 enter the element wants to find :2

        find at index :1
        find at index :2
        element frequency of 2 is 2
```

- Pattern -

CODE

```
#include<stdio.h>
int main()
{int i,j,a=1;
 for(i=1;i<=5;i++)
 { for(j=1;j<=i;j++)
 { printf("%d",j);
 }
 printf("\n");
 }
}
```

OUTPUT

```
1
12
123
1234
12345
```

Pattern -

CODE

```
#include<stdio.h>
int main()
{int i,j;
printf("*****\n");
for(i=1;i<=3;i++)
{for(j=1;j<=2;j++)
{
printf("*");
 printf("   ");
}
printf("\n");
}
 printf("*****");
return 0;
}
```

OUTPUT

```
*****
*     *
*     *
*     *
*****
```

- Pattern -

CODE

```
#include <stdio.h>
int main() {
	int n = 5;
	for (int i = 1; i <= 5; i++) {
		for (int j = 1; j <= n - i; j++) {
			printf("*");
		}
		printf("\n");
	}
	return 0;
}
```

OUTPUT

```
****
***
**
*
```

- Pattern -

CODE

```
#include <stdio.h>
int main() {
	int n = 5;
	for (int i = 1; i <= 5; i++) {
		for (int j = 1; j <= n - i; j++) {
			printf(" ");
		}
		for (int j = 1; j <= n; j++) {
			printf("*");
		}
		printf("\n");
	}
	return 0;
}
```

OUTPUT

```
    *****
   *****
  *****
 *****
*****
```

- Pattern -

CODE

```
#include <stdio.h>
int main() {
        int n = 6;
        for (int i = 1; i <= n; i++) {
                for (int j = 1; j <= n - i; j++) {
                        printf(" ");
                }
                for (int j = 1; j <= 2 * i - 1; j++) {
                        printf("*");
                }
                printf("\n");
        }
        return 0;   }
```

OUTPUT

```
     *
    ***
   *****
  *******
 *********
***********
```