

```
//1.odd or even
```

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

```
Int oddoreven(int l,int n)
```

```
{
```

```
    For(i=0;i<=n;i++)
```

```
    {
```

```
        If(i%2==0)
```

```
        Printf(“%d is even\n”,i);
```

```
        Else
```

```
        Printf(“%dis odd\n”,i);
```

```
    }
```

```
}
```

```
Int main()
```

```
{
```

```
    Int n,n1;
```

```
    Printf(“enter the range 1:”);
```

```
    Scanf(“%d”,&n);
```

```
    Printf(“enter the range 2:”);
```

```
    Scanf(“%d”,&n1);
```

```
    Oddoreven(n,n1);
```

```
}
```

```
//2.power of number
```

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

```
#include<math.h>
```

```

Int power(int bn,int exp)
{
    Int power=1;
    While(exp>0){
        Power = power*bn;
        Exp--;
    }
    Printf("The power of %d is %d",bn,power);
    Return 0;
}

Int main()
{
    Int bn,exp;
    Printf("Enter the base and exponent:");
    Scanf("%d%d",&bn,&exp);
    Power(bn,exp);
}

```

//3.max among two numbers

```

#include<stdio.h>

Int maax(int a,int b)
{
    If(a>b)
        Return a;
    Else
        Return b;
}

```

```

Int main()
{
    Int a,b;
    Printf("enter two numbers to check max:");
    Scanf("%d%d",&a,&b);
    Printf("%d is the max number",maax(a,b));
}

```

//4.call by reference

```

#include<stdio.h>

Int sum1(int l,int j)
{
    Printf("The sum of %d and %d is:%d ",l,j,i+j);
}

Int pro2(int k,int l)
{
    Printf("The product of %d and %d is:%d ",k,l,k*l);
}

Int main()
{
    Int a,b;
    Printf("enter two values:");
    Scanf("%d%d",&a,&b);
    //call by reference
    Pro2(a,b);
}

```

//5.power using recursion

```

#include <stdio.h>

```

```

Int power(int n1, int n2);

Int main() {
    Int base, a, result;
    Printf("Enter base number: ");
    Scanf("%d", &base);
    Printf("Enter power number: ");
    Scanf("%d", &a);
    Result = power(base, a);
    Printf("%d^%d = %d", base, a, result);
    Return 0;
}

Int power(int base, int a) {
    If (a != 0)
        Return (base * power(base, a - 1));
    Else
        Return 1;
}

```

//6.fibonacci using recursion

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

```
Int fibb(int r)
```

```

{
    If(r<=1)
    {
        Return r;
    }
    Else
    {

```

```

    Return fibb(r-1)+fibb(r-2);
}

}

Int main()
{
    Int a,i;
    Printf("Enter the number of limit:");
    Scanf("%d",&a);
    For(i=0;i<=a;i++)
    {
        Printf("\n%d",fibb(i));
    }
    Return 0;
}

```

//7.product using recursion

```

#include <stdio.h>

Int product(int n1,int n2);

Int main()
{
    Int a,b,p;
    Printf("Enter a:");
    Scanf("%d",&a);
    Printf("Enter b:");
    Scanf("%d",&b);
    P=product(a,b);
    Printf("The product of %d and %d is %d",a,b,p);
}

```

```

    Return 0;
}
Int product(int a, int b)
{
    If (a < b)
    {
        Return product(b, a);
    }
    Else if (b != 0)
    {
        Return (a + product(a, b - 1));
    }
    Else
    {
        Return 0;
    }
}

```

//8.sum of digits

```

#include <stdio.h>
Int main()
{
    Int n, sum=0;
    Printf("Enter any number : ");
    Scanf("%d", &n);

    While(n!=0)
    {

```

```

        Sum += n % 10;

        N = n / 10;
    }
    Printf("Sum of digits = %d", sum);

    Return 0;
}

```

//9.Gcd using recursion

```

#include <stdio.h>

Int gcd(int a, int b){
    If (b == 0)
        Return a;
    Else
        Return gcd(b, a % b);
}

Int main(){
    Int a,b;

    Printf("Enter two numbers:");
    Scanf("%d%d",&a,&b);
    Printf("the gcd of two numbers is %d",gcd(a,b));
}

```

/10.prime-armstrong or perfect

```

Include <stdio.h>

Int isprime(int i){
    Int p[4]={2,3,5,7},k,s;
    For (k=0;k<=4;k++){

```

```

If (i%p[k]!=0){
S = 0;
} else if(i==p[k]){
S = 0;
Break;
} else{
S = 1;
Break;
}
}
}
If (s==0){
Printf("Number %d is prime.",i);
} else{
Printf("Number %d is not a prime number.",i);
}
}
}
Int armstrong(int num){
Int l,j,sum,temp;
Temp=num;
While(temp>=1){
l=temp%10;
J=i*i*I;
Sum+=j;
Temp=temp/10;
}
If (sum==num){
Printf("Number %d is armstrong.",num);
}
Else{

```



```

Printf("Number %d is not armstrong",num);
}

}

Int perfnum(int n){
    Int b,a=0;
    If (n%2==0){
        For (b=n/2;b>=1;b--){
            If (n%b==0){
                A+=b;
            }
        }
    }
    If (n==a){
        Printf("%d is a perfect number.",n);
    }
    Else{
        Printf("%d is not a perfect number.",n);
    }
}

Int main(){
    Int inputnum;
    Printf("Enter a number -> "); scanf("%d",&inputnum);
    Isprime(inputnum); printf("\n");
    Armstrong(inputnum); printf("\n");
    Perfnum(inputnum); printf("\n");
}

```

//11.strong number using recursion

```

#include <stdio.h>

Int fact(int n){
    Int a=1, b;
    For(b=1;b<=n;b++) {
        A*=b;
    }
    Return a;
}

Int individual(int n){
    Int l,j=0,k=0;
    For (i=0;i<=n;i++){
        J=n%10;
        N=n/10;
        K+=fact(j);
        If (n==1){
            K+=1;
        }
    }
    Return(k);
}

Int main(){
    Int s,e,l;
    Printf("Enter start and end ");
    Scanf("%d %d", &s, &e);
    Printf("Strong numbers in range (%d , %d) are ",s,e);
    For (i=s;i<=e;i++){
        If (i==individual(i)){
            Printf("The Strong number is %d ",i);

```

}

}

}