**Program 1:check if given number even or odd**

1. Start

Enter a number

1. Enter a number
2. Check number%2==0
3. If yes then print number even else numberis odd
4. stop

Yes

No

Print number odd

Print number Even

Number%2==0

**Program2:write program to find factorial of given number**

1. START
2. Enter variable n andintialize i=1,fact=1

Enter n,i=1,fact=1

1. Enter a number
2. Check if i<=n
3. If yes fact=fact\*i
4. Increment i

Enter number assign to n

1. Repeat step 4 to 6
2. STOP

No

Yes

While(i<=n)

Fact=fact\*I;i++;

**Program3:Find factorial of number using recursion**

1. Start

Enter variable num,factorial,i=1,fact=1

1. Enter variable num,factorial,i=1,fact=1
2. Enter number
3. Call function factorial=fact(num)
4. Check if num>1 if yes then retun num\*fact(n-1)else return 1
5. Stop

If n>=1

Return num\*fact(num-1)

factorial=fact(num)

Return 1

Enter number

**Program4:swap two numbers without using third variable**

1. **Start**
2. **Enter a,b number**
3. **A=a-b**
4. **B=a+b**
5. **A=b-a**

Enter number A,B

1. **Print two number after swap**
2. **stop**

Print two numbers a ,b after swap

A=A-B;

B=A+B;

A=b-a;

**Program5:whether number is positive or negative**

1. Start
2. Enter a number
3. Check if n>0then positive else negative

Enter a numner as n

1. stop

Check if(n>0)

NO

yes

Print positive

Print negative

Program6:find leap year or not

1. Start
2. Enter year
3. Check if(year%4==0)if yes then step 3 otherise step 7

Year%4==0

1. Check if(year%100==0)yes then step5 othrwise step7
2. If(year%100==0) yes then its leap year

Not leap year

1. Print leap year
2. Not leap year
3. stop

Year%100==0

Leap year

Year%400==0

Not leap year

Leap year

**Program7:print 1 to 10 without using loop**

1. start
2. initialize i=1,n=10
3. loop till i<=n
4. i++

I=1,n=10

1. end

Check (i<=n){i++}

**program8program to print digits of given number**

yes

Print value of i

1. START

Enter n.rem

1. Enter N,Rem
2. Check n>0
3. Rem=n%10
4. Print rem
5. N=n/10 Go to step 3

Check if (n>0){rem=n%10}

}

1. STOP

n=n/10

Print rem

**Program10:program to find sum of digits**

1. **Start**

**Enter n,rem,sum=0**

1. **Enter n,rem,sum=0**
2. **Loop till n>0 check rem=n%10;**
3. **Print rem**
4. **sum=sum+rem;**
5. **n=n/10**
6. **print sum of number**

while (n>0){

rem=n%10;

print(rem);

sum=sum+rem;

n=n/10;

}

1. **stop**

Print sum

**Program9:program to print all the factors of given number**

1. **Start**
2. **Enter num,i=1**
3. **Loop til l i<=n and check if num%i==0**
4. **Print i**
5. **stop**

Print i

For(i<=n;i++)

{num%==1

}

Enter num,i=1;

**program 11:find smallest of 3 numbers**

1. Start
2. Enter number a,b&c
3. Check if(a<b)if yes then check if (a,c)if yes then print a is smaller else c is smaller
4. Check if (b<c) if yes then print b is smallest else cis smallest

Enter number a,b and c

1. Print sallest number
2. stop

Print a is smaller

Print c is smaller

Print b is smaller

If(b<c)

If(a<b){

If(a<c)

}

yes

No

yes

Enter a,b,sum=a

**Program12:add two numbers without using operator**

1. Start
2. Enter a,b,sum=a;

While(b>0)

Sum=sum+a;b--;

1. Add a until b>0
2. Print sum
3. Stop

Print sum

**Program 13:reverse given number**

1. Start
2. Enter n,sum=0,rem;

Enter n,sum=0,rem;

1. Repeat till n!=0
2. rem=n%10;
3. sum=sum\*10+rem;
4. n=n/10;

While(n!=0){

rem=n%10; sum=sum\*10+rem; n=n/10;

}

1. print sum
2. stop

Print sum

**Program 14:find GCD of given two numbers**

1. Start
2. Take two int numbers set gcd=1
3. Check in loop whether a%i==0 && b%i==0
4. Set gcd=I;
5. ++I;
6. Repeat step3
7. Print gcd
8. stop

Enter gcd,a,b,i=1

Print gcd

Check if(i<=a && i<=b)

If(a%i==0&&b%i==0) set gcd=i

**Program15:program to lcm of given two numbers**

1. start
2. enter a and b and gcd=1,lcm
3. loop til condition satisfy i<=a &&i<=b

Enter a,b,lcm,gcd=1

1. check if I is factor of both a and b
2. set gcd=i
3. lcm=(a\*b)/gcd

Check if(i<=a && i<=b)

If(a%i==0&&b%i==0) set gcd=i

1. print lcm
2. stop

Lcm=(a\*b)/gcd

Print lcm

**program 16:Write program to find lcm of two numbers using prime factors method**

1. Start
2. Enter num1,num2,res
3. Call primefact function passing num1,num2 as parameter
4. Set m=2,a=1;
5. Check if num1>1 and num2>1 if yes
6. Check if (num1%m==0)&&(num2%m==0) if yes then
7. step 6 to 8 if not then step 11
8. Divide num1 by m store in num1
9. Divide num2 by m store in num2
10. A=a\*m
11. Increment m by 1
12. Check if m>num1 or m>num2
13. If yes then a=a\*num1
14. A=a\*num2
15. Return value of a
16. Return a

Program 17:check whether number is palindrome or not

1. Start

Enter a n,sum=0,rem,temp

1. Enter a n,sum=0,rem,temp
2. Store number n in temp variable
3. Repeat step 3 to 7 till n!=0
4. Take remainder of number
5. sum=sum\*10+rem;
6. n=n/10;

Temp=n

1. print sum value
2. if sum==temp then print number is palindrome
3. else print not palindrome

while(n!=0){

rem=n%10;

sum=sum\*10+rem;

n=n/10;

}

1. stop

No

yes

Number is palindrome

Number is not palindrome

If sum==temp

Print sum

**program 18:program to print all prime factors of number**

Enter num ,m=2

1. Start
2. Enter num ,m=2

While(num>1)

Check if(num%m==0)

1. Repeat step 3 to 6 till num>1
2. If num%m==0 then print num
3. Num divide by m and store into num
4. Else increment m by 1

No

1. stop

yes

M++

Print m and num=num/m

**program 18:program to print even series of number**

1. Start
2. Enter num=1and limit=100

Enter num=1and limit=100

1. Check if num%2==0 yes then
2. Print number
3. stop

Yes

No

Print num

If(num%2==0)

**program 18:program to print Odd series of number**

1. Start
2. Enter num=1and limit=100

Enter num=1and limit=100

1. Check if num%2!=0 yes then
2. Print number

stop

Yes

No

Print num

If(num%2!=0)