1. Write a program to print numbers from 1 to 100.

IPO:

`input: i

Process : using for loop and incrementing the value of i till 100 and printing it

Output: numbers from 1 to 100

Code:

#include<stdio.h>

void main()

{

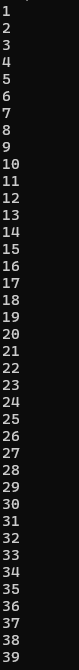
int i;

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

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

}

Output:



2. Write a program to print even numbers from 1 to 50.

IPO:

Input : i

Process: by using for loop and incrementing the value of i by 2 and printing the value of i

Output: even numbers from 1 to 50

Code:

#include<stdio.h>

void main()

{

int i;

for (i = 2 ; i <= 50 ; i+=2)

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

}

Output:

A black background with white numbers

AI-generated content may be incorrect.

3.Write a program to find the factorial of a number.

IPO:

Input: number n

Process: using for loop, multiplying the numbers within n and storing it in f

Output: factorial of the given number

Code:

#include<stdio.h>

void main()

{

int n,f=1;

scanf("%d",&n);

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

{

f \*= i;

}

printf("the factorial of the %d is %d ",n,f);

}

Output:



4.Write a program to calculate the sum of digits of a number.

IPO:

Input: number n

Process: using while loop and taking the last digit of the number and adding it to sum, while simultaneously taking away the last digit form n

Output: sum of the digits of the number4

Code:

#include<stdio.h>

void main()

{

int n, r, sum = 0 ;

scanf("%d",&n);

int m = n;

while(n>0)

{

r = n % 10;

n = n / 10

sum += r;

}

printf("sum of digits of the given number '%d' is %d", m, sum);

}

Output:



5.Write a program to reverse a number

IPO:

Input: number n

Process: using while loop and taking the last digit of the number and adding it to rev by multiplying the rev with 10 and add the last digit, while simultaneously taking away the last digit form n

Output: reverse the number n

Code:

#include<stdio.h>

void main()

{

int n,r,rev=0;

scanf("%d",&n);

while(n>0)

{

r = n% 10;

rev = rev \* 10 + r;

n = n / 10;

}

printf("%d", rev);

}

Output:



6.Write a program to check whether a number is a palindrome.

IPO:

Input: number n

Process: reversing the number by using while loop and adding the last number to rev \* 10 and assigning it to rev. if rev is equal to the number n it is palindrome else not

Output: n is palindrome or not

Code:

#include<stdio.h>

void main()

{

int n,r,rev=0;

scanf("%d",&n);

int m = n;

while(n>0)

{

r = n% 10;

rev = rev\*10 + r;

n = n / 10;

}

if (m == rev)

printf("palindrome");

else

printf("not a palindrome");

}

Output:



7.Write a program to print multiplication table of a number.

IPO:

Input: number n

Process: using for loop printing the multiplication table by multiplying n with i and incrementing the value of i

Output: multiplication table of the given number

Code:

#include<stdio.h>

void main()

{

    int n;

    printf("enter a number ");

    scanf("%d",&n);

    for(int i = 0 ; i < 11 ; i++)

        printf("%d X %d = %d",n,i,n\*i);

}

Output:

A black background with white text

AI-generated content may be incorrect.

8.Write a program to count the number of digits in a number.

IPO:

Input: number n

Process: using while loop, and incrementing the value of d for every digit in the number n

Output: number of digits in the number n

Code

#include<stdio.h>

void main()

{

int n, r, d=0;

scanf("%d",&n);

int m = n;

while(n>0)

{

r = n% 10;

n = n / 10;

d++;

}

printf("number of digits = %d",d);

}

Output:



9.Write a program to print the Fibonacci series up to n terms.

IPO:

Input: number of terms n

Process: assigning the values 1 and -1 to b and c and assign their sum to a, and reassigning the values, c=band b=a.

Output: Fibonacci series up to n terms

Code:

#include<stdio.h>

void main()

{

int n, a, b = 1 , c = - 1

scanf("%d",&n);

for(int i = 0 ; i < n + 2 ; i++)

{

a=b+c;

c=b;

b=a;

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

}

}

Output:

A black background with white text

AI-generated content may be incorrect.

10.Write a program to calculate the sum of the first n natural numbers.

IPO:

Input: number n

Process: using for loop and adding the numbers from 1 to N and store it in sum

Output: Sum of first natural numbers

Code:

#include<stdio.h>

void main()

{

    int n,sum=0;

    printf("enter a number ");

    scanf("%d",&n);

    for(int i = 0 ; i <=n ; i++)

        sum+=i;

    printf("The sum of first %d numbers = %d",n,sum);

}

Output:

