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

IPO
Input:Enter a value as a input.
Process: To print numbers from 1 to 100.
Output:output the variable

Program:

```
#include <stdio.h>
int main()
{
   int i;
   for (i = 1; i <= 100; i++)
 {
       printf("%d\n", i);
  }

   return 0;
}
```

Output:

```
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
```

68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

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

IPO
Input:Enter a value as a input.
Process: To print even numbers from 1 to 50.
Output:output the variable

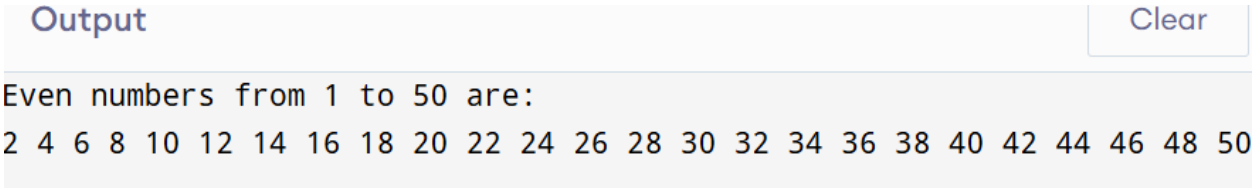
Program:
#include <stdio.h>

```
int main() {
    int i;

    printf("Even numbers from 1 to 50 are:\n");
    for (i = 1; i <= 50; i++) {
        if (i % 2 == 0) {
            printf("%d ", i);
        }
    }

    return 0;
}
```

Output:



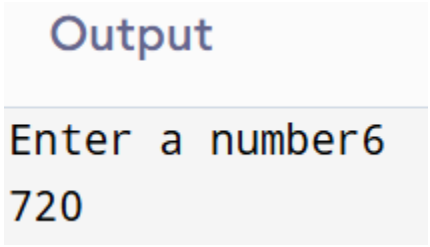

3. Write a program to find the factorial of a number.

IPO
Input:Enter a value as a input.
Process: To find the factorial of a number.
Output:output the variable

Program:

```
#include <stdio.h>
int main()
{
    int n,fact,i;
    fact = 1;
    scanf("%d", &n);
    for(i = 1; i <= n; i++)
        fact *= i;
    printf("%ld", fact);
    return 0;
}
```

Output:



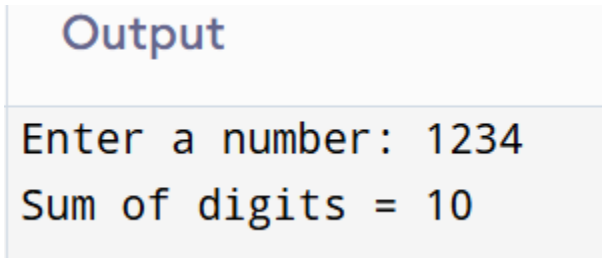

4. Write a program to calculate the sum of digits of a number.

IPO
Input:Enter a value as a input.
Process: To calculate the sum of digits of a number.
Output:output the variable

Program:

```
#include <stdio.h>
int main()
{
   int num, sum = 0, digit;
   printf("Enter a number: ");
   scanf("%d", &num);
   while (num != 0)
{
      digit = num % 10;
      sum += digit;
      num /= 10;
   }
   printf("Sum of digits = %d\n", sum);
   return 0;
}
```

Output:



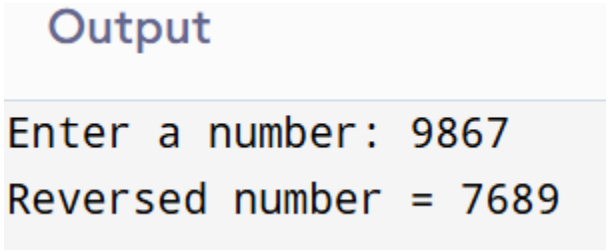

5. Write a program to reverse a number.

IPO
Input:Enter a value as a input.
Process: To reverse a number.
Output:output the variable

Program:

```
#include <stdio.h>
int main()
{
   int num, rev = 0, digit;
   printf("Enter a number: ");
   scanf("%d", &num);
   while (num != 0)
   {
      digit = num % 10;
      rev = rev * 10 + digit;
      num /= 10;
   }
   printf("Reversed number = %d\n", rev);
   return 0;
}
```

Output:




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

IPO
Input:Enter a value as a input.
Process: To check whether a number is a palindrome..
Output:output the variable

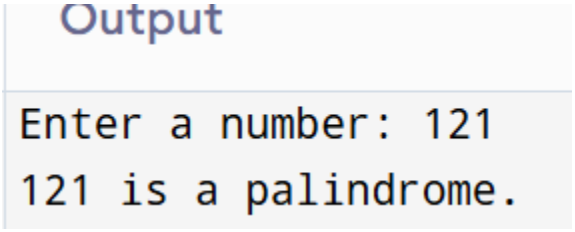
Program:

```
#include <stdio.h>
int main()
{
   int num, original, reversed = 0, digit;
   printf("Enter a number: ");
```

```
    scanf("%d", &num);
    original = num;
    while (num != 0)
    {
        digit = num % 10;
        reversed = reversed * 10 + digit;
        num /= 10;
    }
    if (original == reversed)
        printf("%d is a palindrome.\n");
    else
        printf("%d is not a palindrome.\n");

    return 0;
}
```

Output:




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

IPO
Input:Enter a value as a input.
Process: To  print multiplication table of a number.
Output:output the variable

Program:

```
#include <stdio.h>
int main()
{
    int num, i;
    printf("Enter a number: ");
    scanf("%d", &num);
    printf("Multiplication Table of %d:\n", num);
    for(i = 1; i <= 10; i++)
 {
        printf("%d x %d = %d\n", num, i, num * i);
    }

    return 0;
```

}

Output:

```
Enter a number: 5
Multiplication Table of 5:
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

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

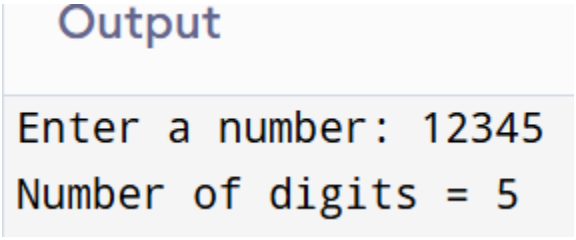
IPO
Input:Enter a value as a input.
Process: To count the number of digits in a number.
Output:output the variable

Program:

```
#include <stdio.h>
int main()
{
    int num, count = 0;
    printf("Enter a number: ");
    scanf("%d", &num);
    if (num == 0)
    {
        count = 1;
    }
```

```
    else
    {
        while (num != 0)
        {
            num /= 10;
            count++;
        }
    }
    printf("Number of digits = %d\n", count);
    return 0;
}
```

Output:




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

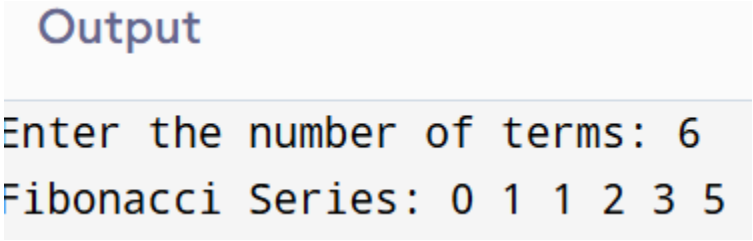
IPO
Input:Enter a value as a input.
Process: To print the Fibonacci series up to n terms.
Output:output the variable

Program:

```
#include <stdio.h>
int main()
{
    int n, i;
    int a = 0, b = 1, next;
    printf("Enter the number of terms: ");
    scanf("%d", &n);
    printf("Fibonacci Series: ");
    for (i = 1; i <= n; i++)
    {
        printf("%d ", a);
        next = a + b;
        a = b;
        b = next;
    }
    return 0;
```

}

Output:




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

IPO
Input:Enter a value as a input.
Process: To calculate the sum of the first n natural numbers.
Output:output the variable

Program:

```
#include <stdio.h>
int main()
{
    int n, sum;
    printf("Enter a positive integer: ");
    scanf("%d", &n);
    sum = n * (n + 1) / 2;
    printf("Sum of first %d natural numbers is %d\n", n, sum);
    return 0;
}
```

Output: