Institute of technology of Cambodia

Departments of Information technology and Communication

Engineering

Course: Algorithms and programming I

Teacher: BOU CHANNA

TP –06 (More practice with loop)

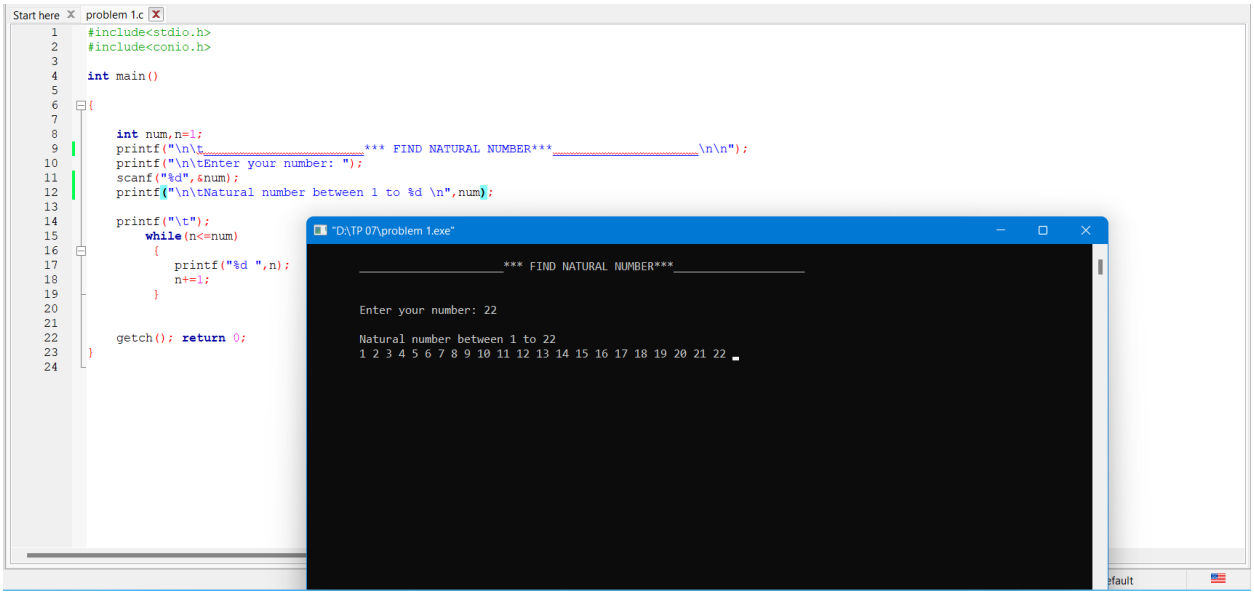
Student: TOUN DINA

ID: e20191207

GROUP: I3-GIC .C

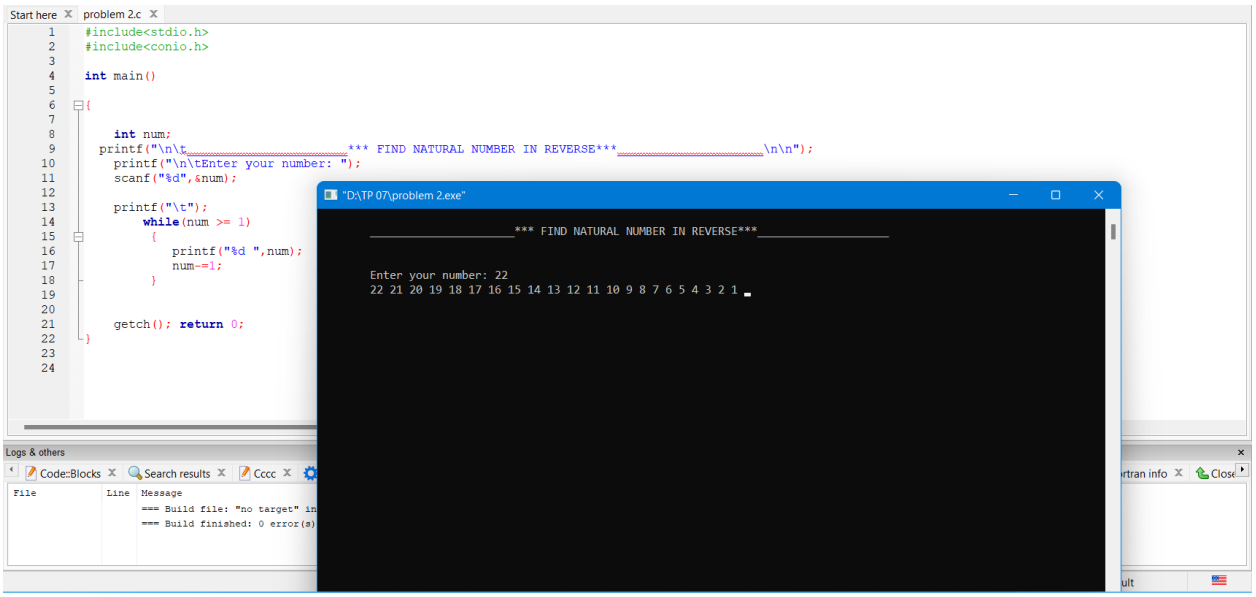
Problem 1

Write a C program to print all natural numbers from 1 to n using while loop



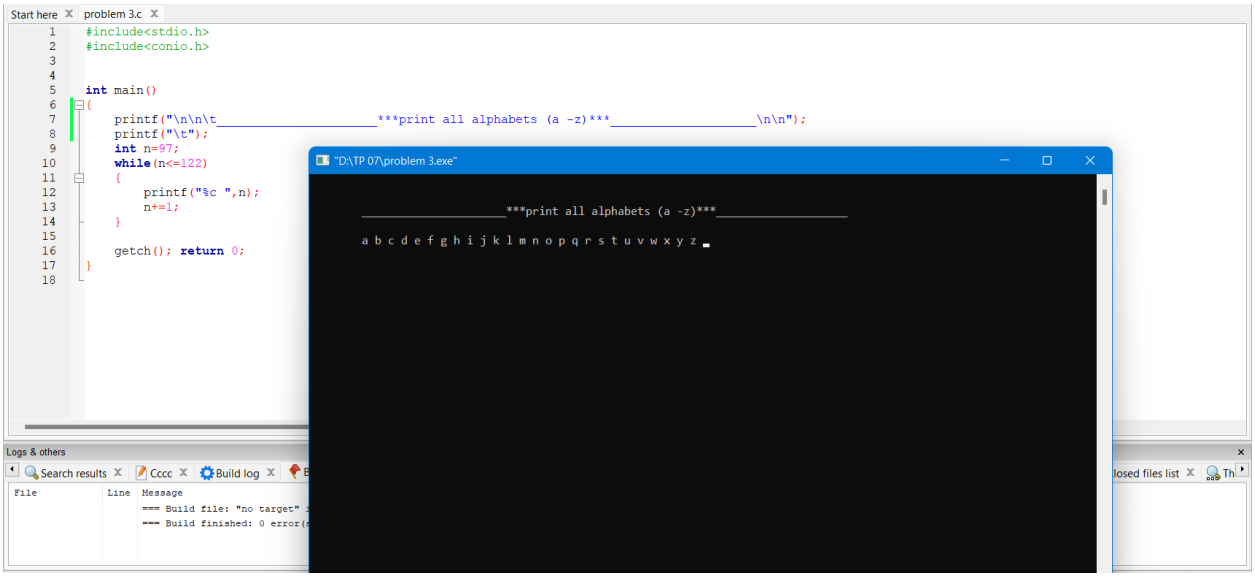
Problem 2

Write a C program to print all natural numbers in reverse (from n to 1). -using while loop



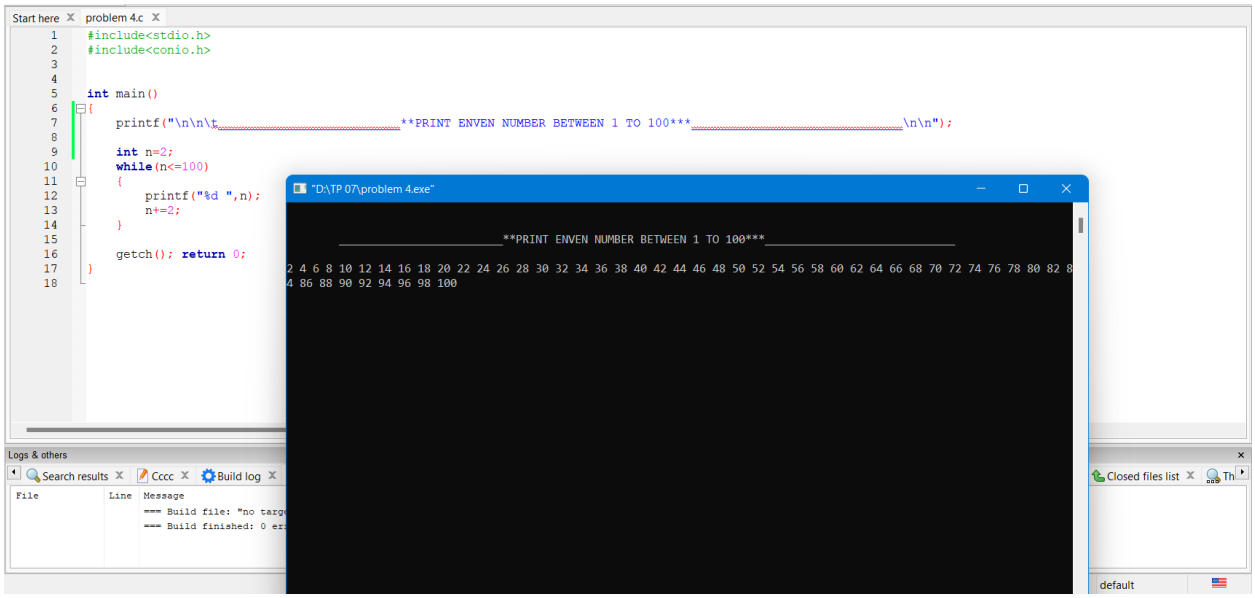
Problem 3

Write a C program to print all alphabets from a to z. -using while loop



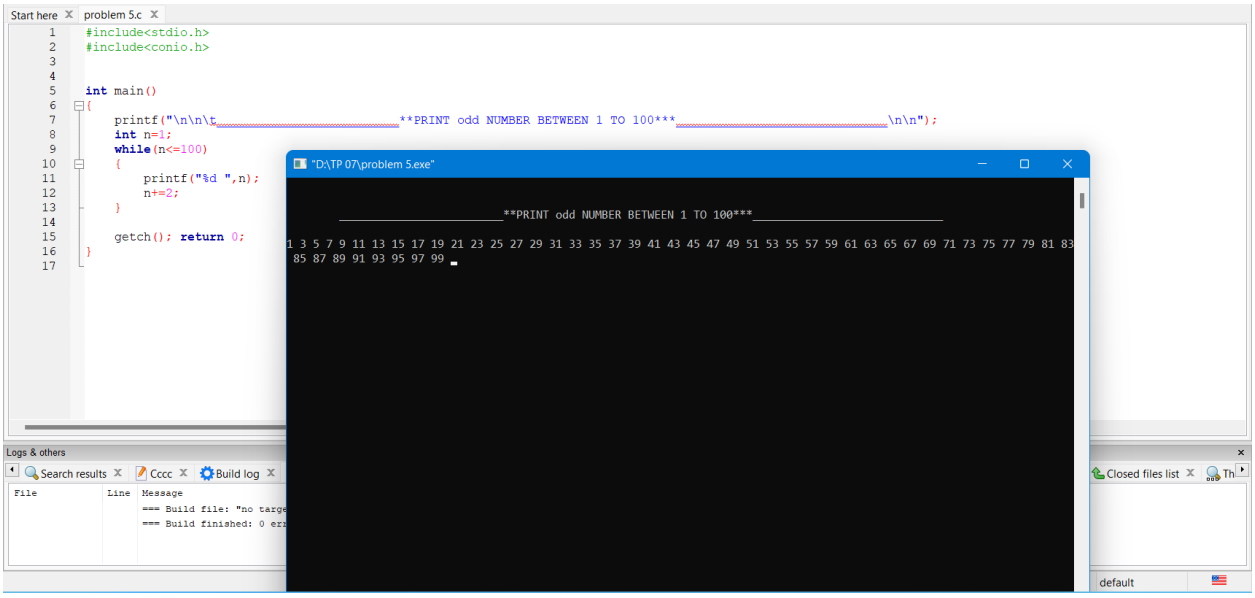
Problem 4

Write a C program to print all even numbers between 1 to 100. -using while loop



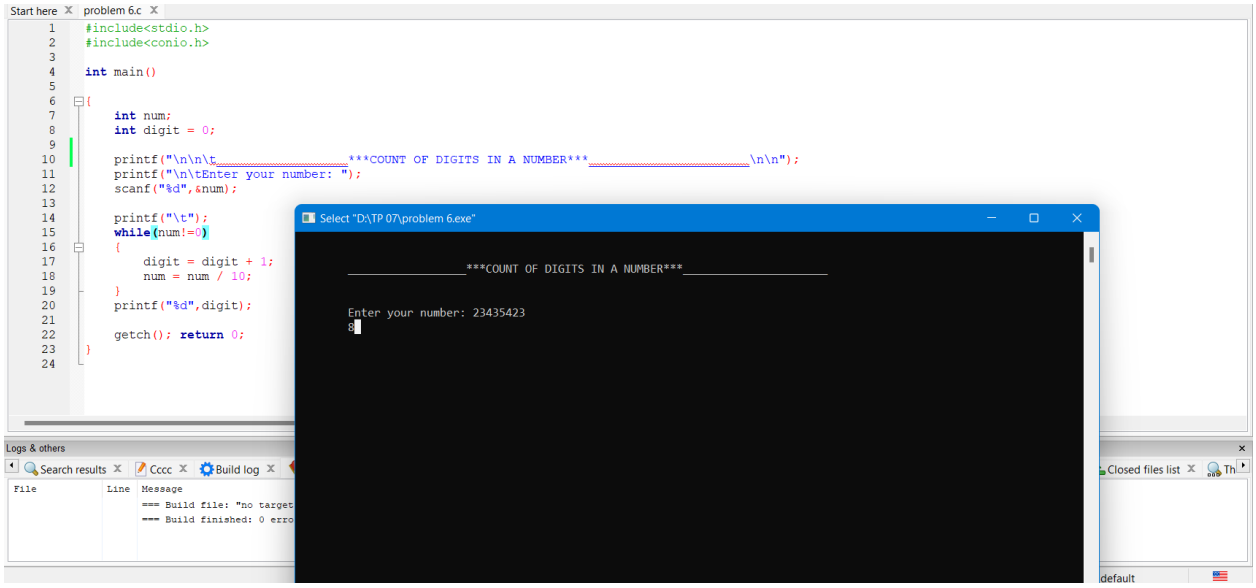
Problem 5

Write a C program to print all odd number between 1 to 100.



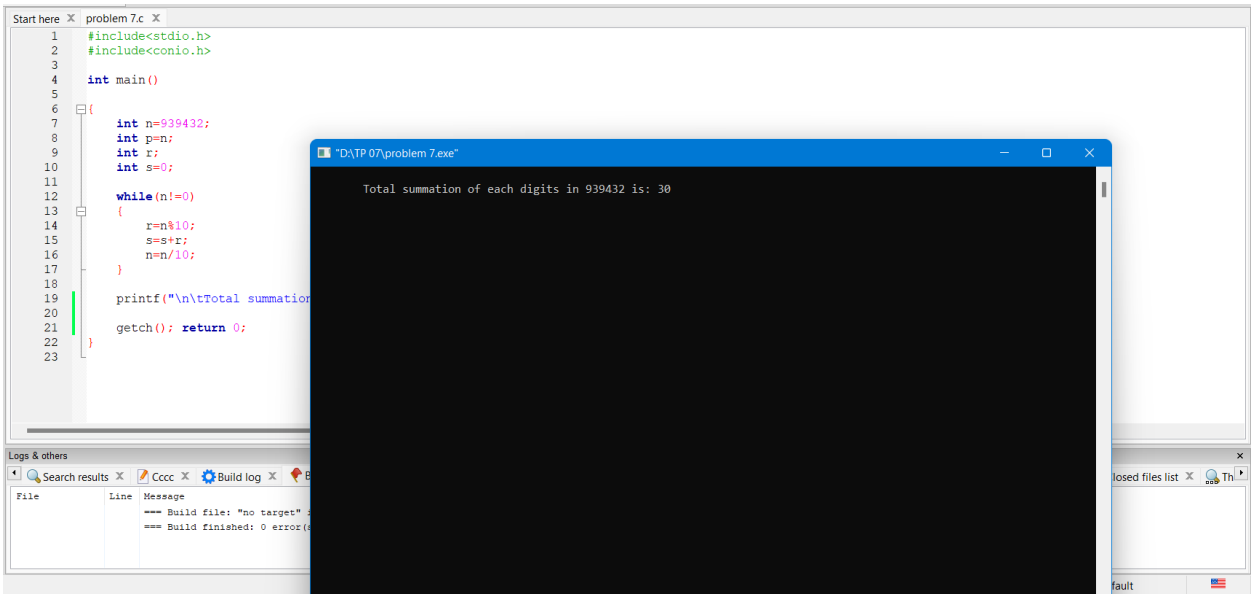
Problem 6

Write a C program to count number of digits in a number.



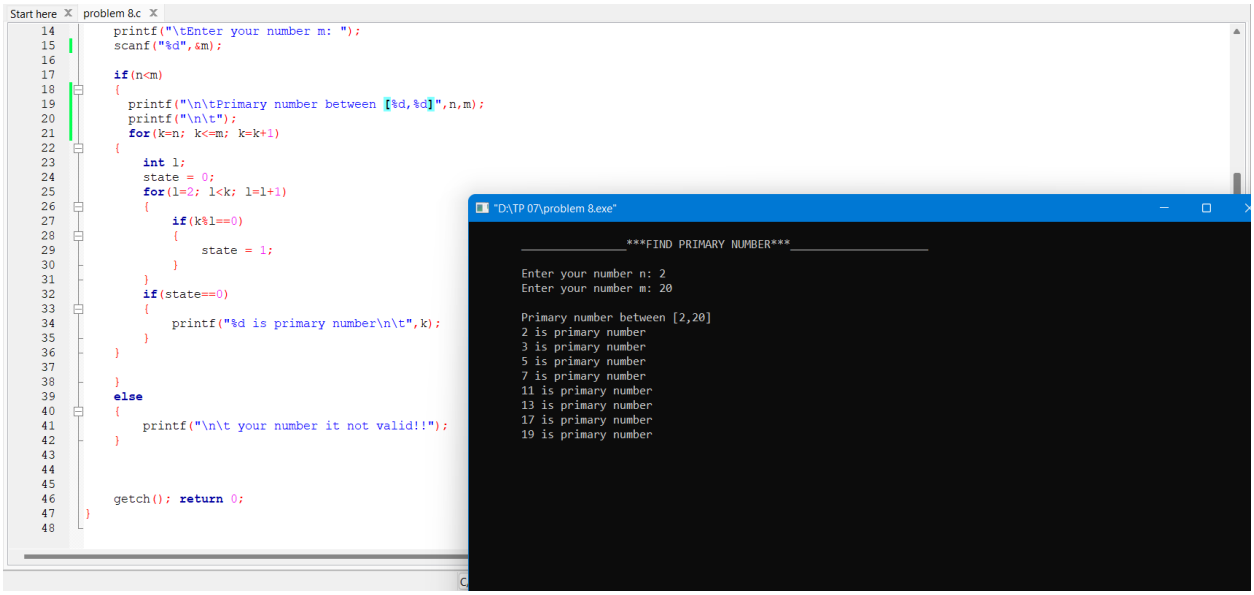
Problem 7

Write a C program to calculate sum of digits of a number.



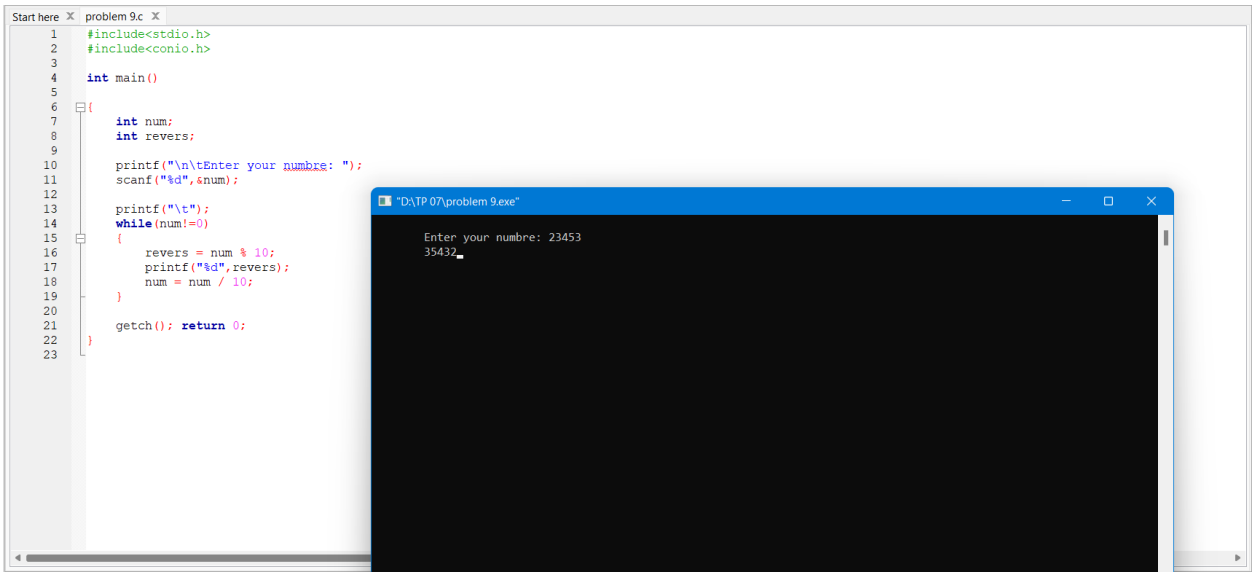
Problem 8

Write a C program to display all primary numbers between [n, m], where n and m are integer numbers input by a user. Validate that n should be always less than m, otherwise shows some message warning.



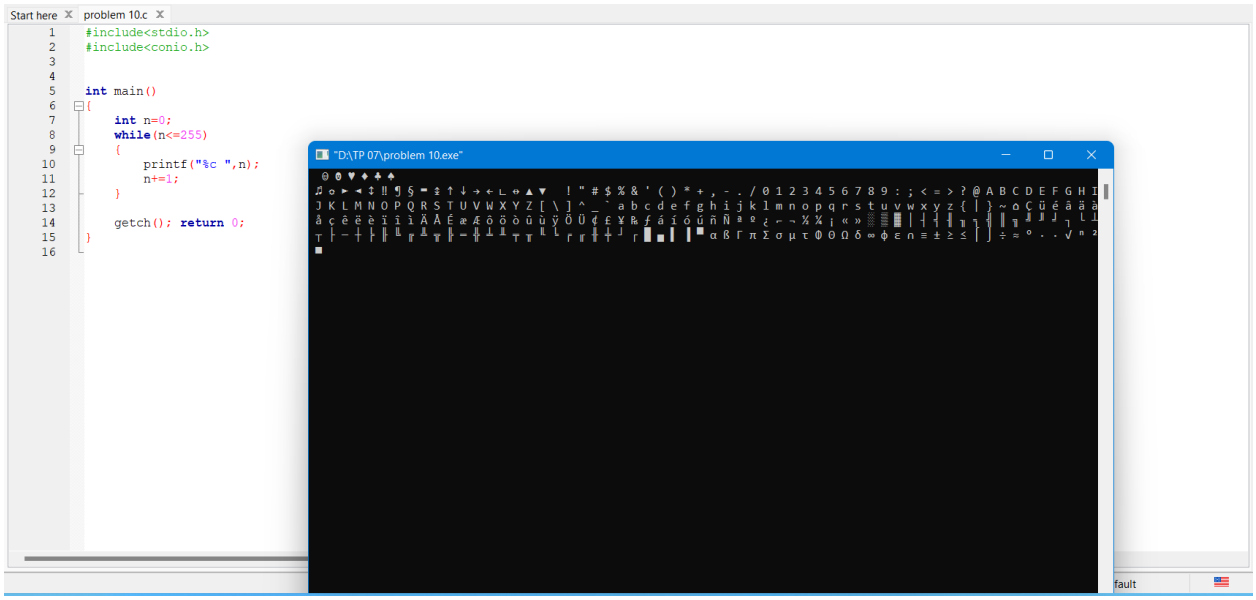
Problem 9

Write a C program to enter a number and print its reverse.



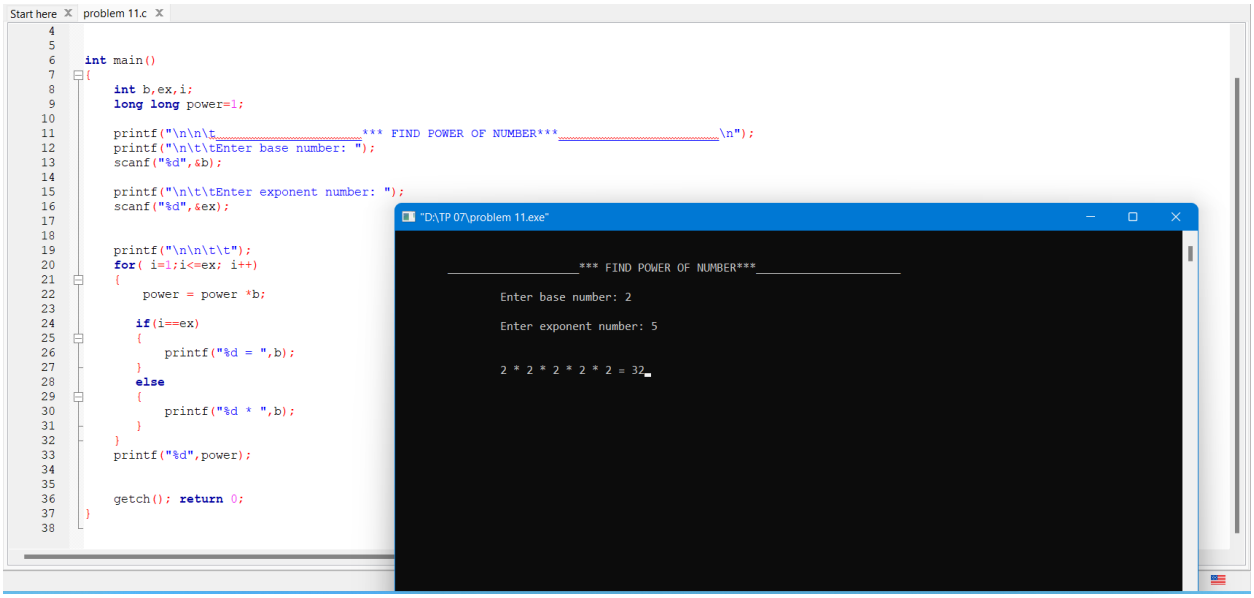
Problem 10

Write a C program to print all ASCII codes (0-255) and its character.



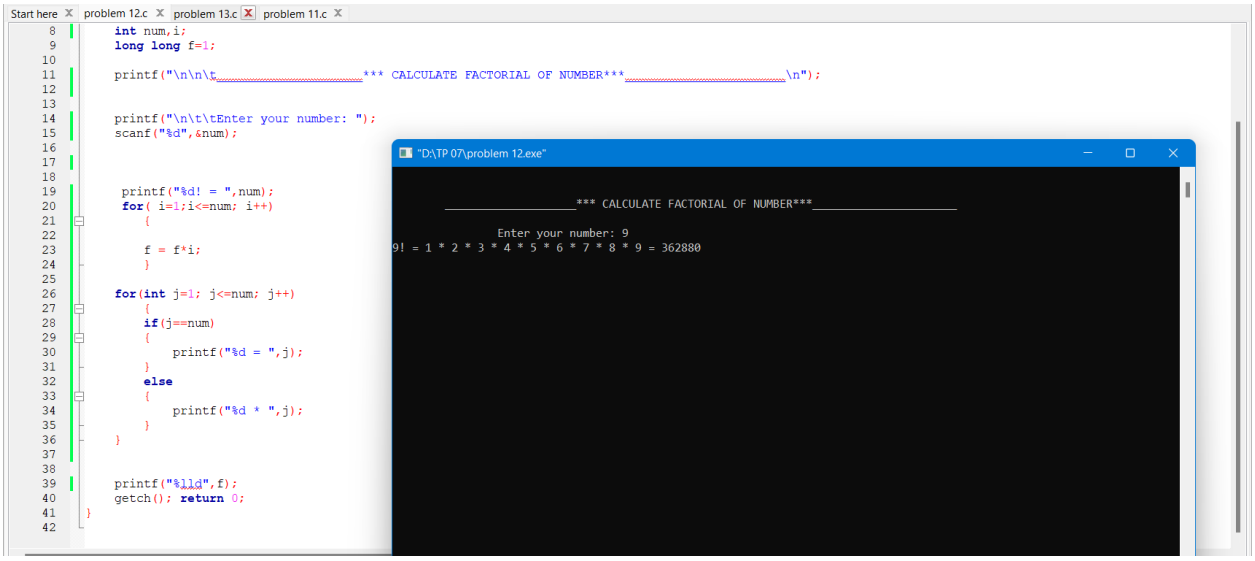
Problem 11

Write a C program to find power of a number using for loop.



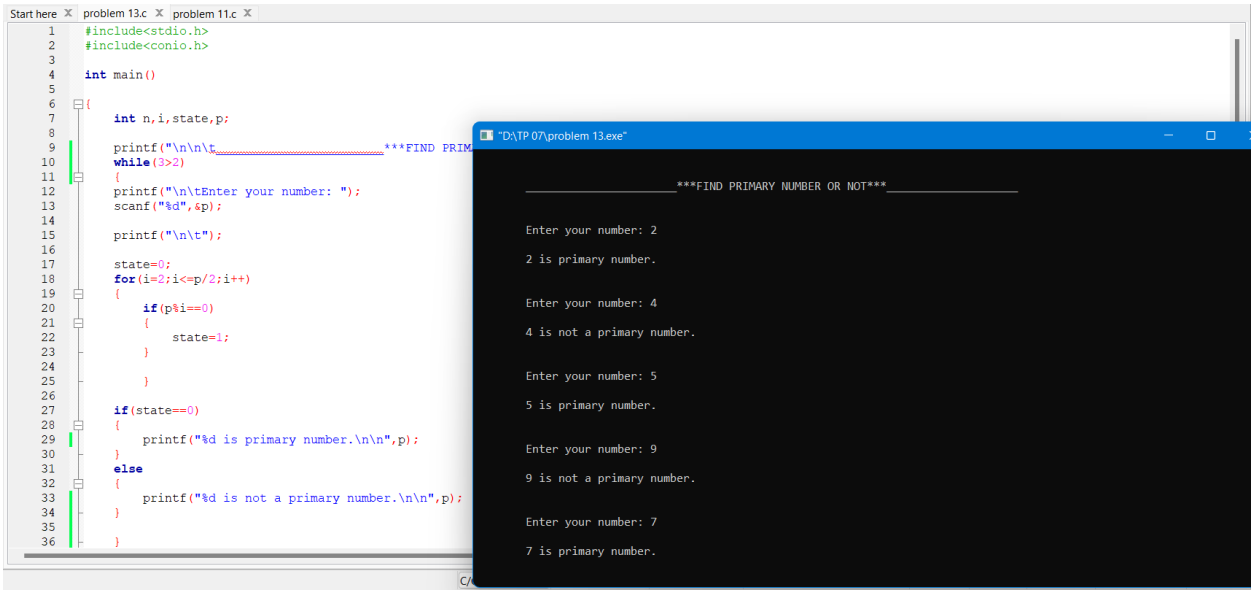
Problem 12

Write a C program to calculate factorial of a number.



Problem 13

Write a C program to check whether a number is Prime number or not.

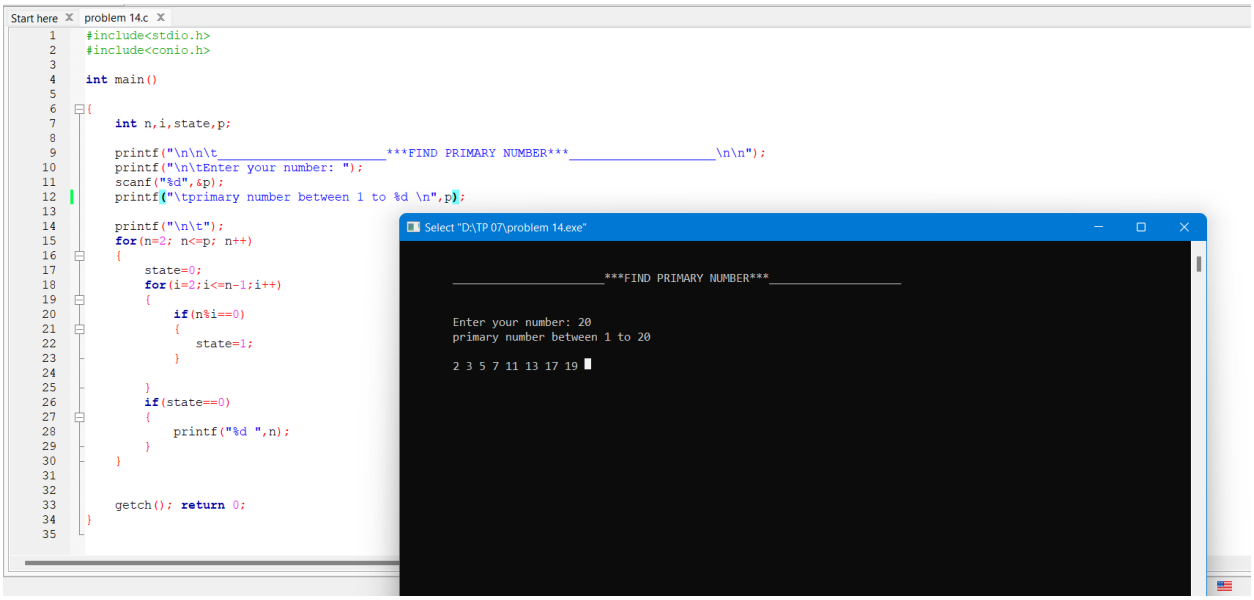


```c
#include<stdio.h>
#include<conio.h>

int main()

{
    int n,i,state,p;

    printf("\n\n\t_____***FIND PRIM
    while(3>2)
    {
    printf("\n\tEnter your number: ");
    scanf("%d",&p);

    printf("\n\t");

    state=0;
    for(i=2;i<=p/2;i++)
    {
        if(p%i==0)
        {
            state=1;
        }

        }

    if(state==0)
    {
        printf("%d is primary number.\n\n",p);
    }
    else
    {
        printf("%d is not a primary number.\n\n",p);
    }

    }
```

```
"D:\TP 07\problem 13.exe"

_____***FIND PRIMARY NUMBER OR NOT***_____

Enter your number: 2

2 is primary number.

Enter your number: 4

4 is not a primary number.

Enter your number: 5

5 is primary number.

Enter your number: 9

9 is not a primary number.

Enter your number: 7

7 is primary number.
```

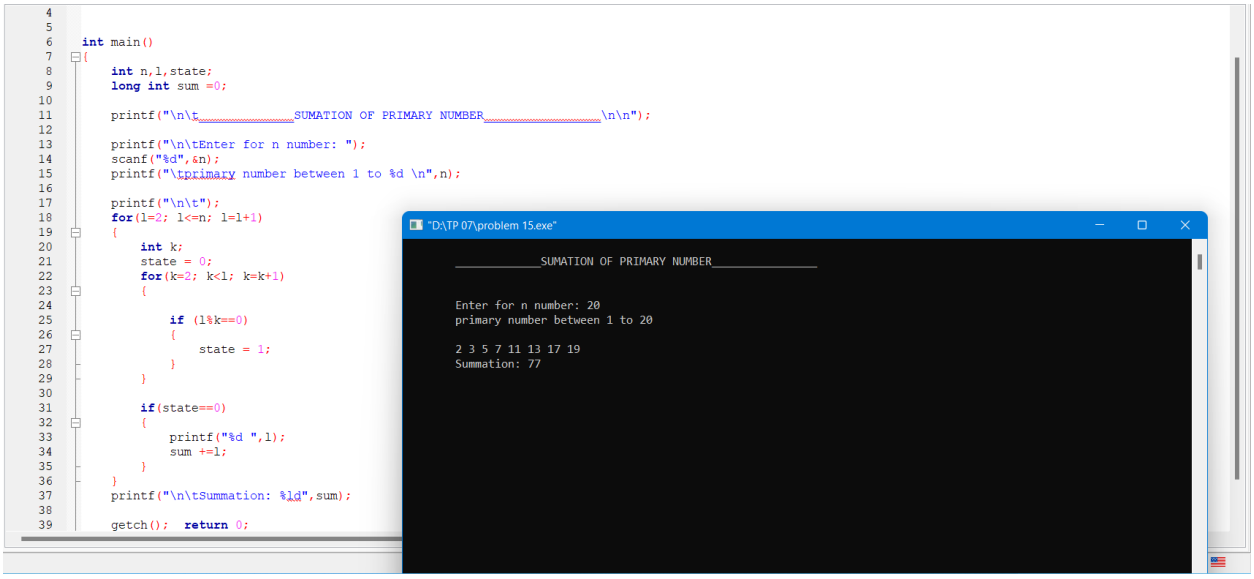
Problem 14

Write a C program to print all Prime numbers between 1 to n.



Problem 15

Write a C program to find sum of all prime numbers between 1 to n.

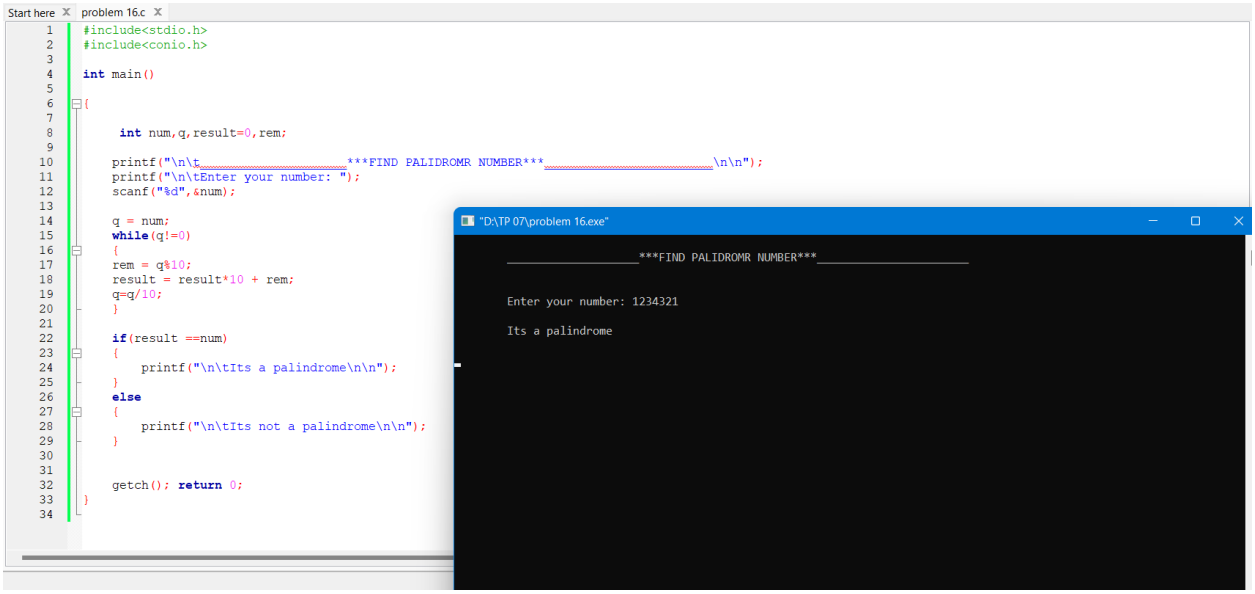


```c
int main()
{
    int n,l,state;
    long int sum =0;

    printf("\n\t_____SUMATION OF PRIMARY NUMBER_____\n\n");

    printf("\n\tEnter for n number: ");
    scanf("%d",&n);
    printf("\tprimary number between 1 to %d \n",n);

    printf("\n\t");
    for(l=2; l<=n; l=l+1)
    {
        int k;
        state = 0;
        for(k=2; k<l; k=k+1)
        {

            if (l%k==0)
            {
                state = 1;
            }
        }

        if(state==0)
        {
            printf("%d ",l);
            sum +=l;
        }
    }
    printf("\n\tSummation: %ld",sum);

    getch();  return 0;
```

```
"D:\TP 07\problem 15.exe"

     _____SUMATION OF PRIMARY NUMBER_____


Enter for n number: 20
primary number between 1 to 20

2 3 5 7 11 13 17 19
Summation: 77
```

Problem 16

Write a C program to check whether a number is palindrome or not.

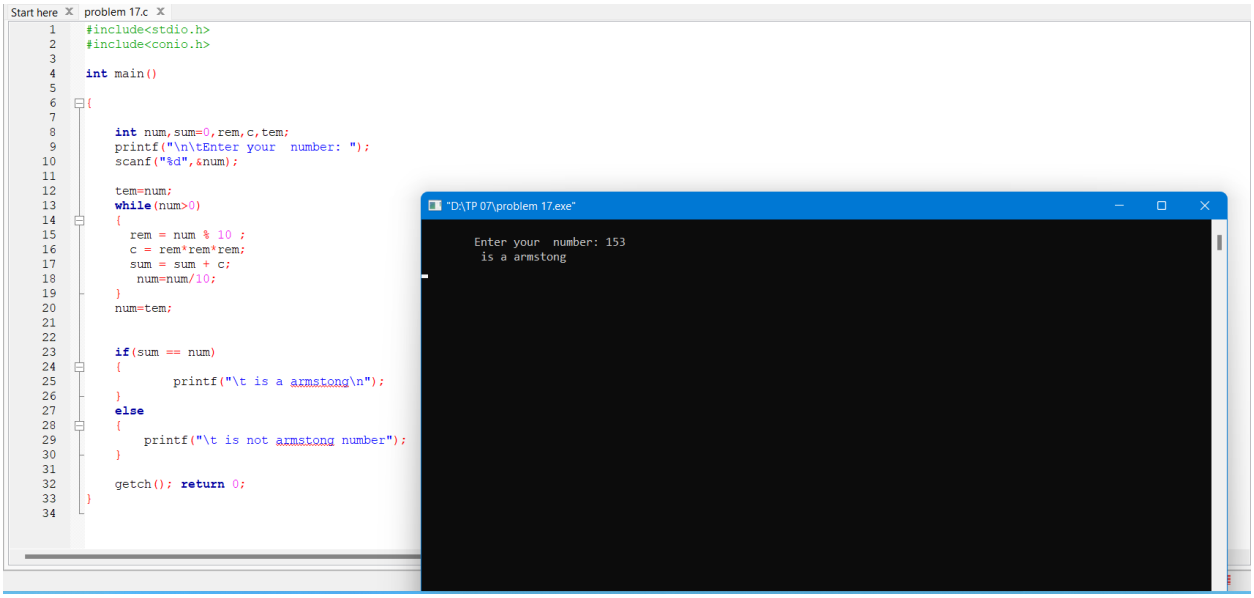


```c
#include<stdio.h>
#include<conio.h>

int main()

{

     int num,q,result=0,rem;

    printf("\n\t_____***FIND PALIDROMR NUMBER***_____\n\n");
    printf("\n\tEnter your number: ");
    scanf("%d",&num);

    q = num;
    while(q!=0)
    {
    rem = q%10;
    result = result*10 + rem;
    q=q/10;
    }

    if(result ==num)
    {
        printf("\n\tIts a palindrome\n\n");
    }
    else
    {
        printf("\n\tIts not a palindrome\n\n");
    }


    getch(); return 0;
}
```

```
"D:\TP 07\problem 16.exe"

_____***FIND PALIDROMR NUMBER***_____

Enter your number: 1234321

Its a palindrome
```

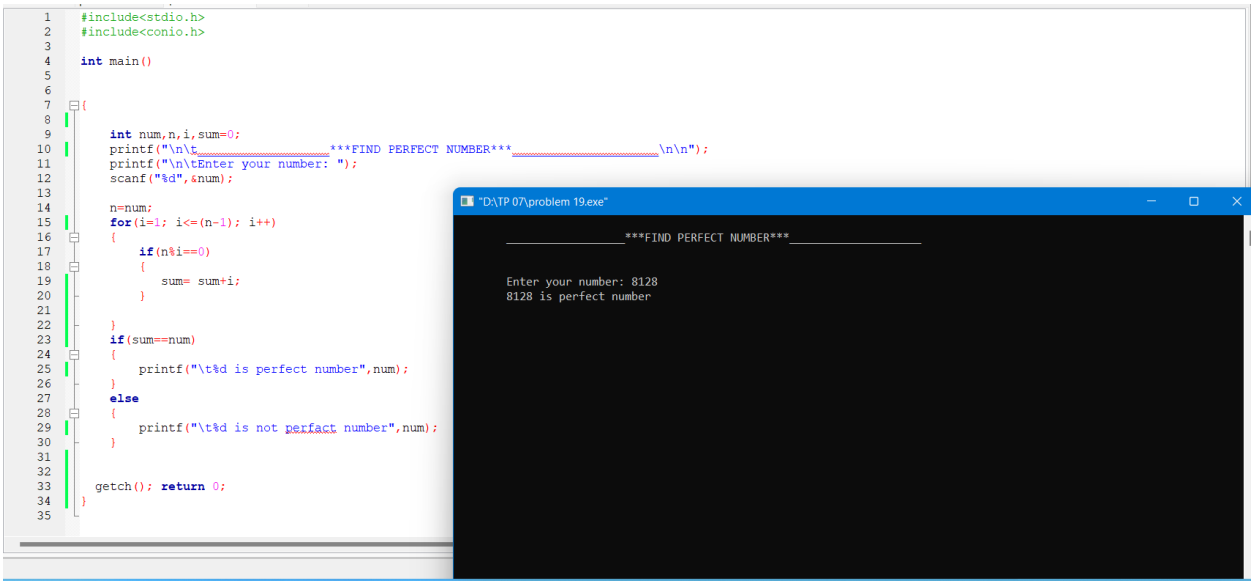
Problem 17

Write a C program to check whether a number is palindrome or not.



Problem 19

Write a C program to check whether a number is Perfect number or not.

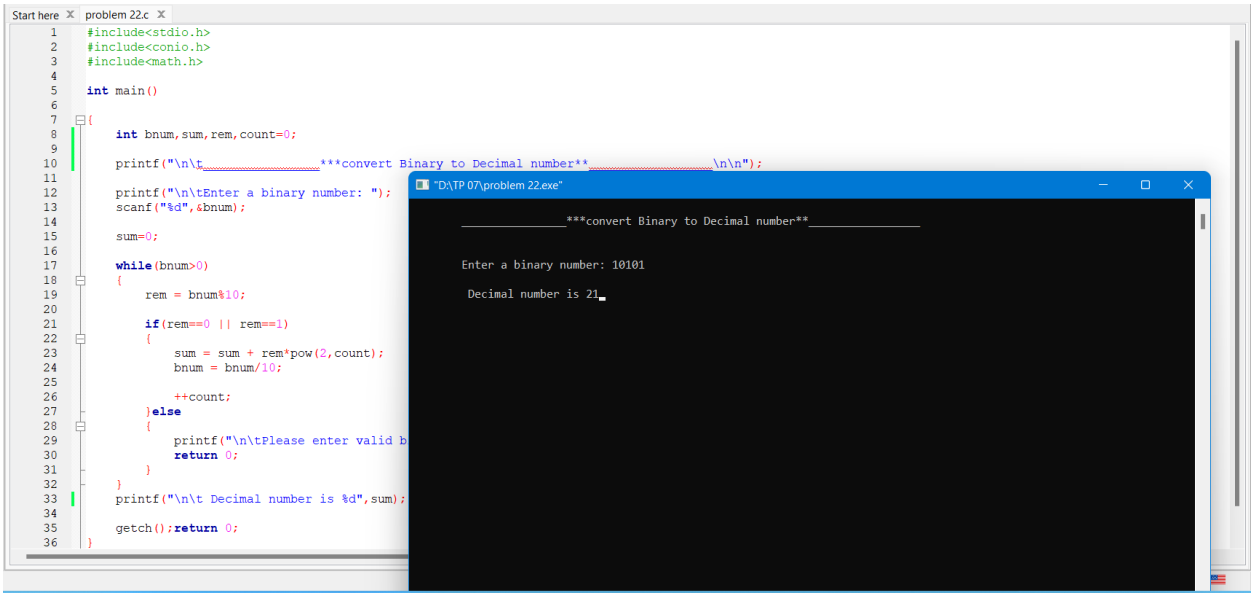


```c
#include<stdio.h>
#include<conio.h>

int main()


{

    int num,n,i,sum=0;
    printf("\n\t_____***FIND PERFECT NUMBER***_____\n\n");
    printf("\n\tEnter your number: ");
    scanf("%d",&num);

    n=num;
    for(i=1; i<=(n-1); i++)
    {
        if(n%i==0)
        {
           sum= sum+i;
        }

    }
    if(sum==num)
    {
        printf("\t%d is perfect number",num);
    }
    else
    {
        printf("\t%d is not perfact number",num);
    }


  getch(); return 0;
}
```

```
"D:\TP 07\problem 19.exe"

_____***FIND PERFECT NUMBER***_____


Enter your number: 8128
8128 is perfect number
```

Problem 22

Write a C program to convert Binary to Decimal number system.



Thank you!!!