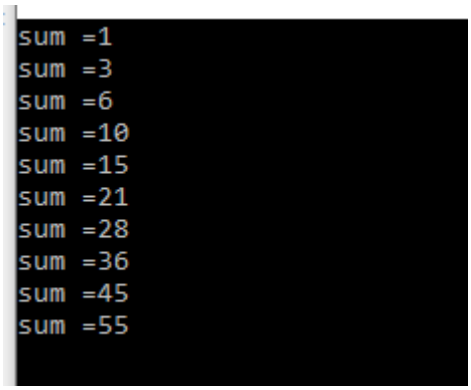
QUESTION:1

```
#include<stdio.h>

int main()

{

int i,sum=0;

for(i=1;i<=10;i++)

{

        sum=sum+i;

        printf("sum =%d\n",sum);

        }

}
```

OUTPUT:-



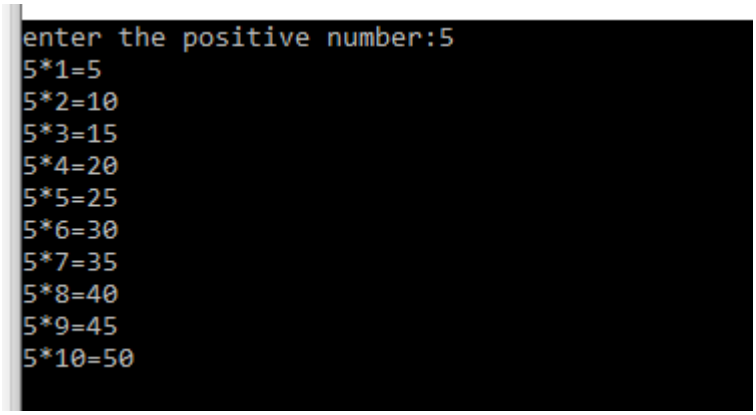
QUESTION:2

```
#include<stdio.h>

int main()

{

        int i=1,n,mul;

        printf("enter the positive number:");

        scanf("%d",&n);

        while(i<=10)

        {

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

                i++;
```

}

}

OUTPUT:-



QUESTION:3

```
#include<stdio.h>
int main()
{
        int i,num,sum=0;
        printf("enter  the terms of odd natural number:");
        scanf("%d",&num);
        i=1;
        do
        {
                printf("%d\n",2*i-1);
                sum=(sum+(2*i-1));
                i++;
        }
while(i<=num)
{
        printf("the sum of odd natural is %d",sum);
}
```

OUTPUT:-

```
enter  the terms of odd natural number:5
1
3
5
7
9
the sum of odd natural is 25
```

QUESTION:4

```
#include<stdio.h>

int main()

{

        int i, j,n ;

        printf("enter the value of n");

        scanf("%d",&n);

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

        {

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

                {

                        printf("*");

                }

        printf("\n");

        }

}
```

OUTPUT:-

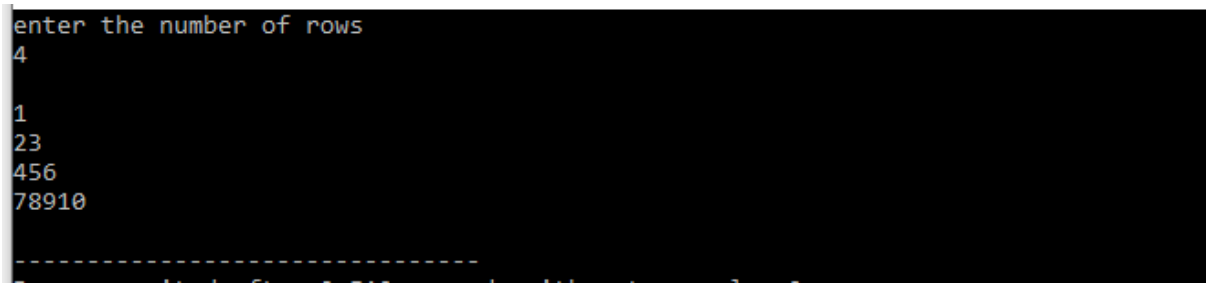
```
enter the value of n5
*
**
***
****
*****
```

QUESTION:5

```
        #include<stdio.h>

        int main()
```

```
{
        int i=1,j=1,n,value;
        printf("enter the number of rows\n");
        scanf("%d",&n);
        printf("\n");
        while(j<=n)
        {
        value=1;
                while(value<=j)
                {
                printf("%d",i);
                i++;
                value++;
                }
                j++;
                printf("\n");
        }
        return 0;
}
```

OUTPUT:-



QUESTION:6

```
#include<stdio.h>
int main()
{
int x=1,i=1,j;
```

```
do{
j=5-i;
   do{
   printf(" ");
   j--;
   }while(j>0);
j=i;
   do{
   printf("%d ",x);x++;j--;
   }while(j>0);
printf("\n");
i++;
}while(i<5);
return 0;
}
```

OUTPUT:-

QUESTION:7

```
#include<stdio.h>
int main()
{
   int row,c=1,x,i,j;
   printf("Input number of rows: ");
   scanf("%d",&row);
   for(i=0;i<row;i++)
   {
      for(x=1;x<=row-i;x++)
```

```
      printf("  ");
      for(j=0;j<=i;j++)
      {
         if (j==0||i==0)
            c=1;
         else
           c=c*(i-j+1)/j;
         printf("% 4d",c);
      }
      printf("\n");
   }
}
```

OUTPUT:-

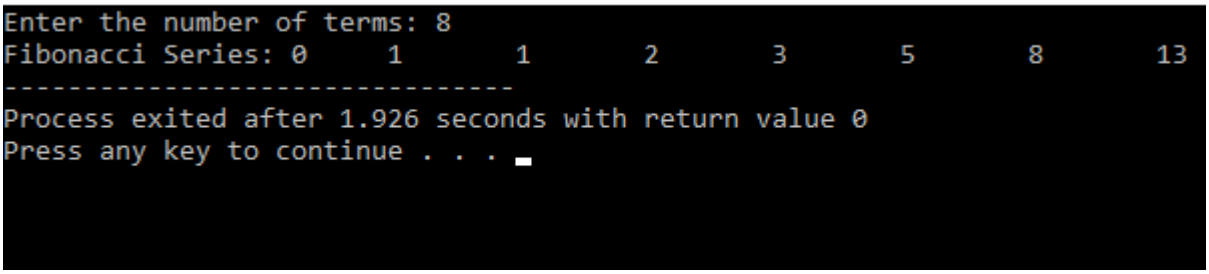
```
nput number of rows: 5
            1
          1   1
        1   2   1
      1   3   3   1
    1   4   6   4   1
```

QUESTION:8

```
#include <stdio.h>
int main() {
   int i, n, t1 = 0, t2 = 1, nextTerm;
   printf("Enter the number of terms: ");
   scanf("%d", &n);
   printf("Fibonacci Series: ");

   for (i=1; i<=n;i++)
         {
      printf("%d\t", t1);
      nextTerm = t1 + t2;
```

```
        t1 = t2;

        t2 = nextTerm;

    }


   return 0;

}
```

OUTPUT:-

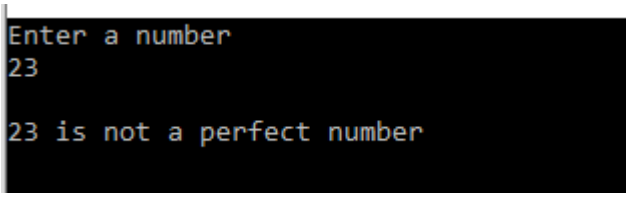


QUESTION:9

```
#include<stdio.h>

int main()

{

int num, count = 1, sum = 0;

  printf("Enter a number\n");

    scanf("%d", &num);

     while(count < num)

    {

        if(num%count == 0)

        {

            sum = sum + count;

        }

        count++;

    }

    if(sum == num)

    {
```

```
        printf("\n%d is a perfect number\n", num);
    }
    else
    {
        printf("\n%d is not a perfect number\n", num);
    }
    return 0;
}
```

OUTPUT:-

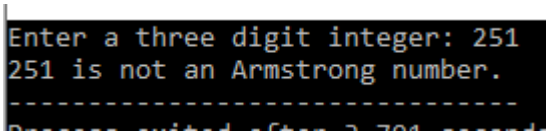


QUESTION:10

```
#include<stdio.h>
int main()
{
int num,originalNum, r, result = 0;
    printf("Enter a three digit integer: ");
    scanf("%d", &num);
    originalNum = num;

    while (originalNum != 0)
            {
        r = originalNum % 10;
       result=(result+(r * r * r));
       originalNum /= 10;
    }
       if (result == num)
        printf("%d is an Armstrong number.", num);
```

```
    else
        printf("%d is not an Armstrong number.", num);

    return 0;
}
```

OUTPUT:-



QUESTION:11

```
#include <stdio.h>
int main() {
    int n, i=2, flag = 0;
    printf("Enter a positive integer: ");
    scanf("%d", &n);

    do{
        if (n % i == 0)
      {
          flag = 1;
          break;
       }
       ++i;
    }while(i <= n / 2);

    if (n == 1) {
        printf("1 is neither prime nor composite.");
    }
    else if(n==2){
        printf("2 is a prime number");
```

```
    }
    else {
        if (flag == 0)
            printf("%d is a prime number.", n);
        else
            printf("%d is not a prime number.", n);
    }
 return 0;
}
```

OUTPUT:-

```
Enter a positive integer: 23
23 is a prime number.
------------------------------
```

QUESTION:12

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

OUTPUT:-

```
Enter an integer: 345
Reversed number = 543
```

QUESTION:13

```
#include <stdio.h>

int main()

{   long int n,i,t=9;

        int sum =0;

        printf("Input the number or terms :");

        scanf("%ld",&n);

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

        { sum =sum+t;

          printf("%ld   ",t);

          t=t*10+9;

        }

        printf("\nThe sum of the series = %d \n",sum);

        return 0;

}
```

OUTPUT:-

```
Input the number or terms :5
9   99   999   9999   99999
The sum of the series = 111105

--------------------------------
```

QUESTION:14

```
#include<stdio.h>

int main()

{


float x,sum,t,d;

        int i=1,n;

        printf("Input the Value of x :");

        scanf("%f",&x);

        printf("Input the number of terms : ");
```

```
        scanf("%d",&n);

        sum =1; t = 1;

        while (i<n)

        {

         d = (2*i)*(2*i-1);

         t = -t*x*x/d;

         sum =sum+ t;

         i++;

        }

        printf("\nthe sum = %f\nNumber of terms = %d\nvalue of x = %f\n",sum,n,x);

}
```

OUTPUT:-

```
Input the Value of x :2
Input the number of terms : 5

the sum = -0.415873
Number of terms = 5
value of x = 2.000000
```

QUESTION:15

```
#include <stdio.h>

#include <math.h>

int main()

{

        int x,sum,ctr;

        int i=1,n,m,mm,nn;

        printf("Input the value of x :");

        scanf("%d",&x);

        printf("Input number of terms : ");

        scanf("%d",&n);

        sum =x; m=-1;

        printf("The values of the series: \n");
```

```
        printf("%d\n",x);
    do
    {
        ctr = (2 * i + 1);
        mm = pow(x, ctr);
        nn = mm * m;
        printf("%d \n",nn);
        sum = sum + nn;
        m = m * (-1);
        i++;
            }while(i<n);
            printf("\nThe sum = %d\n",sum);
            return 0;
}
```

OUTPUT:-