1.
display the sum of first 10 natural number (using for loop)

```
#include <stdio.h>
int main()
{
    int i=0, sum;
    printf("sum of first 10 natural number:");
    for(i=1;i<=10;i++)
    {
        sum=sum+i;
        printf("%d",i);
    }
    printf("\nThe sum is:%d\n",sum);
    return 0;
}
```

2.
display the multiplication table of a given integer(using while loop)

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

    printf("\nMultiplication table for %d is:\n\n", num);
    while(count <= 10)
    {
        printf("%d x %d = %d\n", num, count, (num*count));
        count++;
    }
    return 0;
}
```

OUTPUT:

```
Enter a number
2
Multiplication table for 2 is:

2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
```

3.

display the n terms of odd natural number and their sum(Using do...while loop)

```
#include<stdio.h>
void main()
{
     int num,i,sum=0;
     printf("enter the number\n");
     scanf("%d",&num);
     i=0;
     do
     {
          if((i%2)==0)
          i++;
          else
          {
               sum=sum+i;
               i++;
          }
     }
     while(i<=num);
          printf("sum of odd numbers %d",sum);
  }
```

OUTPUT:

```
enter the number
23
sum of odd numbers 144
```

4.display the pattern like right angle triangle(using for loop)

```
*
**
***
****
```

```
#include<stdio.h>
void main()
{
     int i, j, rows;
     printf("enter the no of row:");
     scanf("%d", &rows);
     for(i=1; i<=rows; i++)
     {
          for (j=1; j<=i; j++)
          {
               printf("*");
          }
          printf("\n");
     }
}
```

OUTPUT:

```
enter the no of row:4
*
**
***
****
```

9. check whether a given number is a perfect number or not. (Using while loop)

```
#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:

```
Enter a number
9
9 is not a perfect number
```

13.

display the sum of series [9+99+999+9999,...](using for loop)

```
#include <stdio.h>
void 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 +=t;
      printf("%ld    ",t);
      t=t*10+9;
    }
    printf("\nThe sum of the series = %d \n",sum);
}
```

OUTPUT

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