Assignment 6

① WAP to calculate sum of first N natural numbers
```c
#include <stdio.h>
int main()
{
    int n, sum=0;
    printf("Enter value of n : ");
    scanf("%d", &n);
    for(int i=1; i<=n; i++)
        sum += i;
    printf("\n Sum of %d natural number is %d", n, sum);
    return 0;
}
```

② WAP to calculate sum of first N even natural numbers
```c
#include <stdio.h>
int main()
{
    int n;
    printf("Enter value of n ");
    scanf("%d", &n);
    for(int i=1; i<=n; i++)
        sum += 2*i;
    printf("Sum of %d even natural number is %d", n, sum);
    return 0;
}
```
Output: Enter value of n 4
        sum of 4 even natural number is 20

③ WAP to calculate sum of first N odd natural numbers
```c
#include <stdio.h>
int main()
{
    int n;
    scanf("%d", &n);
    int sum = 0;
    for(int i=1; i<=n; i++)
        sum += (2*i-1);
    printf("sum of %d odd natural number is %d", n, sum);
    return 0;
}
```
Output: 4
        sum of 4 odd natural number is 16

④ WAP to calculate sum of squares of first N natural numbers

```c
#include <stdio.h>
int main()
{
    int n;
    scanf("%d",&n);
    int sum =0;
    for(int i=1; i<=n; i++)
        sum+= i*i;
    printf("Sum of squares numbers is %d",sum);
    return 0;
}
```

Output: sum of square numbers is 55.

⑤ WAP to calculate sum of cubes of first N natural numbers

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

Output 5
        sum is 225

⑥ WAP to calculate factorial of a number

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

Output: 5
        5! = 120

⑦ WAP to count digits in a given numbers

```c
#include<stdio.h>
int main()
{
    int count=0, n=345678;
    while(n)
    {
        n=n/10;
        count++;
    }
    printf("number of digits is %d",count);
    return 0;
}
```

Output: number of digits is 6

⑧ WAP to check whether a given number is a prime number or not

```c
#include<stdio.h>
int main()
{
    int n,i,flag;
    printf("Enter a number: ");
    scanf("%d",&n);
    for(i=2;i<n;i++)
    {
        if(n%i==0)
        {
            flag=1;
            break;
        }
    }
    if(flag==1)
        printf("Not a prime number");
    else
        printf("Prime number");
    return 0;
}
```

Output: Enter a number: 5
        prime number

⑨ WAP to calculate LCM of two numbers

```c
#include<stdio.h>
int main()
{
    int a=25, b=625, m, i;
    m= a*b;
    for(i=1; i<m; i++)
    {
        if(i%a==0 && i%b==0)
            break;
    }
    printf("LCM is %d", i);
    return 0;
}
```

output : LCM is 625

⑩ WAP to reverse a given number.

```c
#include<stdio.h>
int main()
{
    int n, i, remainder, reverse=0;
    scanf("%d",&n);
    while(n)
    {
        remainder = n%10;
        n=n/10;
        reverse = reverse*10 +remainder;
    }
    printf(" Reverse number is %d", reverse);
    return 0;
}
```

output : 6254
         Reverse number is 4526