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Assignment – 6

Use any loop

1. Wap to calculate sum of first N natural numbers.

→

```
#include<stdio.h>
int main()
{
    int i=1 ,num , sum=0 ;
    printf("enter a number ");
    scanf("%d",&num);
    for(i=1 ; i<=num ; i++)
    {
        sum=sum+i;
    }
    printf("sum of first natural numbers is %d ",sum);
    return 0;
}
```

2. Wap to calculate sum of first N even natural numbers.

→

```
#include<stdio.h>
int main()
{
    int i=1 , num , sum=0 ;
    printf("enter a number ");
    scanf("%d",&num);
    for(i=1 ; i<=num ; i++)
    {
        sum= sum+2*i ;
    }
    printf("sum of first N even natural numbers is %d ",sum);
```

```
    return 0;
}
```

3. Wap to calculate sum of first N odd natural numbers.

→

```
#include<stdio.h>
int main()
{
    int i=1 , num , sum=0  ;
    printf("enter a number ");
    scanf("%d",&num);
    for(i=1 ; i<=num ; i++)
    {
        sum = sum+2*i-1 ;
    }
    printf("sum of first N odd natural numbers is %d ",sum);
    return 0;
}
```

4. Wap to calculate sum of squares of first N natural numbers.

→

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

5. Wap to calculate sum of cubes of first N natural numbers.

→

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

6. Wap to calculate factorial of a number.

→

```
#include<stdio.h>
int main()
{
    int i , num , fact=1 ;
    printf("enter a number ");
    scanf("%d",&num);
    for(i=1 ; i<=num ; i++)
    {
        fact = fact * i ;
    }
    printf("factorial is %d ",fact);
    return 0;
}
```

7. Wap to count digits in a given number.

→

```
#include<stdio.h>
int main ()
```

```
{
    int  n , count=0 ;
    printf("enter  the number ");
    scanf("%d",&n);
    while (n)
    {
        n=n/10;
        count++;
    }
    printf("number of digits is %d ",count);
    return 0 ;
}
```

8. Wap to check whether a given number is a prime or not.

→

```
#include <stdio.h>
int main()
{
    int n , i , flag = 0 ;
    printf("enter the value of n ");
    scanf("%d",&n);
    for(i=2  ; i<n ; i++)
    {
        if(n%2==0)
        {
            flag==1;
            break;
        }
    }
    if (flag==1)
        printf("not a prime number ");
    else
        printf ("prime number ");
```

```
        return 0 ;
    }
```

9. Wap to calculate LCM of two numbers.

→
```
#include<stdio.h>
int main()
{
    int a , b , i ;
    printf("enter two numbers ");
    scanf("%d %d",&a,&b);
    for(i=1 ; i<=a*b ; i++)
    {
        if((i %a == 0) && (i % b == 0))
        {
            break;
        }
    }
    printf("LCM is %d ",i);
    return 0 ;
}
```

10. Wap to reverse a given number.

→
```
#include<stdio.h>
int main()
{
    int  n , rem , rev= 0 ;
    printf("enter a nunber ");
    scanf("%d",&n);
    while(n!=0)
    {
        rem = n % 10 ;
        n= n / 10 ;
        rev = rev * 10 + rem ;
```

```
        }
            printf("reverse is %d",rev);
            return 0 ;
}
```