

Use any loop

1. Write a program to calculate sum of first N natural numbers

```
#include<stdio.h>

int main()
{
    int a,sum=0;
    printf("enter the value of N: ");
    scanf("%d",&a);
    for(int i=1;i<=a;i++)
        sum=sum+i;
    printf("%d\n",sum);
    return 0;
}
```

2. Write a program to calculate sum of first N even natural numbers

```
#include<stdio.h>

int main()
{
    int a,sum=0;
    printf("enter the value of N: ");
    scanf("%d",&a);
    for(int i=1;i<=a;i++)
        sum=sum+i*2;
    printf("%d\n",sum);
    return 0;
}
```

3. Write a program to calculate sum of first N odd natural numbers

```
#include<stdio.h>

int main()
{
    int a,sum=0;
    printf("enter the value of N: ");
    scanf("%d",&a);
    for(int i=1;i<=a;i++)
        sum=sum+i*2-1;
    printf("%d\n",sum);
    return 0;
}
```

4. Write a program to calculate sum of squares of first N natural numbers

```
#include<stdio.h>

int main()
{
    int a,sum=0;
    printf("enter the value of N: ");
    scanf("%d",&a);
    for(int i=1;i<=a;i++)
        sum=sum+i*i;
    printf("%d\n",sum);
    return 0;
}
```

5. Write a program to calculate sum of cubes of first N natural numbers

```
#include<stdio.h>

int main()
{
    int a,sum=0;
    printf("enter the value of N: ");
    scanf("%d",&a);
    for(int i=1;i<=a;i++)
        sum=sum+i*i*i;
    printf("%d\n",sum);
    return 0;
}
```

6. Write a program to calculate factorial of a number

```
#include<stdio.h>

int main()
{
    int a,factorial=1;
    printf("enter the value of N: ");
    scanf("%d",&a);
    for(int i=1;i<=a;i++)
        factorial=factorial*i;
    printf("%d\n",factorial);
    return 0;
}
```

7. Write a program to count digits in a given number

```
#include<stdio.h>

int main()
{
    int a,count=1;
    printf("enter the number: ");
    scanf("%d",&a);
    while(a>=10)
    {
        a=a/10;
        count++;
    }
    printf("%d\n",count);
    return 0;
}
```

8. Write a program to check whether a given number is a Prime number or

Not

```
#include<stdio.h>

int main()
{
    int a,prime=1;
    printf("enter the value: ");
    scanf("%d",&a);
    for(int i=2;i<=a/2;i++)
    if(a%i==0)
    {
        prime=0;
        break;;
    }
}
```

```
    if(prime)
        printf("given number is prime");
    else
        printf("given number is not prime");
    return 0;
}
```

9. Write a program to calculate LCM of two numbers

```
#include<stdio.h>

int main()
{
    int a,b,lcm;
    printf("enter the value of a,b: ");
    scanf("%d %d",&a,&b);
    lcm= (a>b)?a:b;
    while(1)
    {
        if(lcm % a==0 && lcm%b==0)
        {
            printf("lcm of %d %d is %d",a,b,lcm);
            break;
        }
        else
            lcm++;
    }
    return 0;
}
```

10. Write a program to reverse a given number

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

```
int main()
```

```
{
```

```
    int a,rev=0;
```

```
    printf("enter any number: ");
```

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

```
    while(a
```

```
    {
```

```
        rev=rev*10;
```

```
        rev=rev+(a%10);
```

```
        a=a/10;
```

```
    }
```

```
    printf("reverse of given number is %d",rev);
```

```
    return 0;
```

```
}
```