

## Assignment-6

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

**Ans:-**

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

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

**Ans:-**

```
#include<stdio.h>
int main()
{
    int i,n,sum;
    printf("Enter a number ");
    scanf("%d",&n);
    for(i=1,sum=0;i<=n;sum+=2*i,i++);
    printf("Sum=%d",sum);
    return 0;
}
```

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

**Ans:-**

```
#include<stdio.h>
int main()
{
    int i,n,sum;
    printf("Enter a number ");
    scanf("%d",&n);
    for(i=1,sum=0;i<=n;sum+=2*i-1,i++);
    printf("Sum=%d",sum);
    return 0;
}
```

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

**Ans:-**

```
#include<stdio.h>
int main()
{
    int i,n,sum;
    printf("Enter a number ");
    scanf("%d",&n);
```

```

    for(i=1,sum=0;i<=n;sum+=i*i,i++);
    printf("Sum=%d",sum);
    return 0;
}

```

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

**Ans:-**

```

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

```

**6. Write a program to calculate factorial of a number.**

**Ans:-**

```

#include<stdio.h>
int main()
{
    int n,fact;
    printf("Enter a number ");
    scanf("%d",&n);
    for(fact=1;n;n*=n--);
    printf("Factorial=%d",fact);
    return 0;
}

```

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

**Ans:-**

```

#include<stdio.h>
int main()
{
    int n,count;
    printf("Enter a number ");
    scanf("%d",&n);
    for(count=0;n;n/=10);
    printf("No of digit is =%d",count);
    return 0;
}

```

**8. Write a program to check whether a given number is a Prime number or Not.**

**Ans:-**

```

#include<stdio.h>
int main()
{
    int n,i;
    printf("Enter a number ");

```

```

scanf("%d",&n);
for(i=2;i<=n;i++)
    if(n%i==0)
        break;
if(i==n)
    printf("%d is a prime number",n);
else
    printf("%d is not a prime number",n);

return 0;
}

```

**9. Write a program to calculate LCM of two numbers.**

**Ans:-**

```

#include<stdio.h>
int main()
{
    int a,b,i;
    printf("Enter two number ");
    scanf("%d%d",&a,&b);
    i=a>b?a:b;
    for(;i++;)
        if( (i%a==0) && (i%b==0) )
        {
            printf("LCM of %d and %d is = %d",a,b,i);
            break;
        }

    return 0;
}

```

**10. Write a program to reverse a given number.**

**Ans:-**

```

#include<stdio.h>
int main()
{
    int a,x=0,y;
    printf("Enter a number");
    scanf("%d",&a);
    while(a)
    {
        y=a%10;
        x=x*10+y;
        a/=10;
    }
    printf("%d",x);
    return 0;
}

```

