

NUMBER SERIES

Write a program to generate the following series --- 1,4,9,16,25, ...

```
n=int(input())  
for i in range(1,n+1):  
    print(i*i)
```

Write a program to generate the following series --- 6,11,21,36,56,...

```
n=int(input())  
x=6  
print(x)  
for i in range(1,n):  
    x=x+(i*5)  
    print(x)
```

Write a program to generate the first n terms in the series --- 3, 9, 27, 81,....,...

```
n=int(input())  
for i in range(1,n+1):  
    print(3**i)
```

Write a program to generate the following series --- 0.5,1.5,4.5,13.5,...

```
n=int(input())  
x=0.5  
print(x)  
for i in range(1,n):  
    x=x*3  
    print(x)
```

Write a program to generate the following series --- 121,225,361,...

```
n=int(input())
x=11
for i in range(1,n+1):
    a=x**2
    print(a)
    x=x+4
```

Write a program to generate the following series --- 0,2,8,14,...,34

```
n=int(input())
for i in range(1,n+1):
    if((i%2)!=0):
        print((i**2)-1)
    else:
        print((i**2)-2)
```

Write a program to generate the following series --- 1, 2.0, 3.0, 6.0, 9.0, 18.0, 27.0,...

```
n=int(input())
a=1
print(a)
for i in range(2,n+1):
    if((i%2)==0):
        b=((2.0)*a)
        print(b)
        a=b
    else:
        b=((1.5)*(a))
        print(b)
```

a=b

Write a program to generate the following series 4, 5, 9, 18, 34,...

```
n=int(input())
x=4
print(x)
for i in range(1,n+1):
    a=i*i
    x=x+a
    print(x)
```

Write a program to generate the following series 2, 3, 8, 63, 3968

```
n=int(input())
a=2
print(a)
for n in range(n-1):
    b=a*(a-1)+(a-1)
    a=b
    print(a)
```

Write a program to generate the following series 95.0, 115.5, 138.0,..., 189.0

```
n=int(input())
a=95.0
print(a)
for i in range(10,9+n):
    b=a+2*i+(0.5)
    print(b)
```