

1. Write a Python Program to Find the Factorial of a Number?

```
def factorial(n):
    if n == 0:
        return 1
    else:
        return n * factorial(n-1)
n=int(input("Input a number to compute the factiorial : "))
print(factorial(n))
```

2. Write a Python Program to Display the multiplication Table?

```
num = 12

# To take input from the user
# num = int(input("Display multiplication table of? "))

# Iterate 10 times from i = 1 to 10
for i in range(1, 11):
    print(num, 'x', i, '=', num*i)
```

3. Write a Python Program to Print the Fibonacci sequence?

```
# Enter number of terms needed           #0,1,1,2,3,5....
a=int(input("Enter the terms"))
f=0                                     #first element of series
s=1                                     #second element of series
if a<=0:
    print("The requested series is
",f)
else:
    print(f,s,end=" ")
    for x in range(2,a):
        next=f+s
        print(next,end=" ")
        f=s
        s=next
```

4. Write a Python Program to Check Armstrong Number?

```
num = int(input("Enter a number: "))

# initialize sum
sum = 0

# find the sum of the cube of each digit
temp = num
while temp > 0:
    digit = temp % 10
    sum += digit ** 3
    temp //= 10
```

```

# display the result
if num == sum:
    print(num,"is an Armstrong number")
else:
    print(num,"is not an Armstrong number")

```

5. Write a Python Program to Find Armstrong Number in an Interval?

```

lower = 100
upper = 2000

for num in range(lower, upper + 1):

    # order of number
    order = len(str(num))

    # initialize sum
    sum = 0

    temp = num
    while temp > 0:
        digit = temp % 10
        sum += digit ** order
        temp //= 10

    if num == sum:
        print(num)

```

6. Write a Python Program to Find the Sum of Natural Numbers?

```

num = 16

if num < 0:
    print("Enter a positive number")
else:
    sum = 0
    # use while loop to iterate until zero
    while(num > 0):
        sum += num
        num -= 1
    print("The sum is", sum)

```