1. Write a Python Program to Find the Factorial of a Number?
2. Write a Python Program to Display the multiplication Table?
3. Write a Python Program to Print the Fibonacci sequence?
4. Write a Python Program to Check Armstrong Number?
5. Write a Python Program to Find Armstrong Number in an Interval?
6. Write a Python Program to Find the Sum of Natural Numbers?

1. Python Program to Find the Factorial of a Number:

python

```
# Taking input from user
num = int(input("Enter a number: "))

# Initializing the factorial variable
factorial = 1

# Calculating factorial of the given number
for i in range(1, num+1):
    factorial = factorial * i

# Displaying the result
print("The factorial of", num, "is", factorial)
```

2. Python Program to Display the multiplication Table:

python

```
# Taking input from user
num = int(input("Enter a number: "))

# Displaying the multiplication table
for i in range(1, 11):
    print(num, "x", i, "=", num*i)
```

3. Python Program to Print the Fibonacci sequence:

python

```
# Taking input from user
terms = int(input("Enter the number of terms: "))

# Initializing variables
first_term = 0
second_term = 1
```

```
# Displaying the fibonacci sequence
if terms <= 0:
    print("Please enter a positive integer.")
elif terms == 1:
    print("Fibonacci sequence upto", terms, "term:")
    print(first_term)
else:
    print("Fibonacci sequence upto", terms, "terms:")
    for i in range(terms):
        print(first_term, end=" ")
        nth_term = first_term + second_term
        first_term = second_term
        second_term = nth_term
```

4. Python Program to Check Armstrong Number:

python

```
# Taking input from user
num = int(input("Enter a number: "))

# Finding the number of digits in the given number
num_of_digits = len(str(num))

# Initializing variables
sum = 0
temp = num

# Calculating the sum of the cubes of digits
while temp > 0:
    digit = temp % 10
    sum += digit ** num_of_digits
    temp //= 10

# Checking if the number is Armstrong or not
if num == sum:
    print(num, "is an Armstrong number.")
else:
    print(num, "is not an Armstrong number.")
```

5. Python Program to Find Armstrong Number in an Interval:

python

```
# Taking input from user
lower = int(input("Enter the lower limit: "))
upper = int(input("Enter the upper limit: "))

# Checking for Armstrong numbers in the given interval
for num in range(lower, upper+1):
    num_of_digits = len(str(num))
    sum = 0
    temp = num
    while temp > 0:
        digit = temp % 10
        sum += digit ** num_of_digits
        temp //= 10
    if num == sum:
        print(num)
```

6. Python Program to Find the Sum of Natural Numbers:

python

```
# Taking input from user
num = int(input("Enter a number: "))

# Initializing variables
sum = 0

# Calculating the sum of natural numbers
for i in range(1, num+1):
    sum += i

# Displaying the result
print("The sum of first", num, "natural numbers is", sum)
```