Q1. Write a Python Program to Find the Factorial of a Number?

```
num = int(input("Enter a number: "))
factorial = 1
if num < 0:
   print("Factorial is not defined for negative numbers.")
elif num == 0:
   print("The factorial of 0 is 1.")
else:
   for i in range(1, num + 1):
      factorial *= i
   print(f"The factorial of {num} is {factorial}.")
```

Q2. Write a Python Program to Display the multiplication Table?

```
num = int(input("Enter a number: "))
print(f"Multiplication Table of {num}:")
for i in range(1, 11):
   product = num * i
   print(f"{num} x {i} = {product}")
```

Q3. Write a Python Program to Print the Fibonacci sequence?

```
num_terms = int(input("Enter the number of terms: "))
term1 = 0
term2 = 1
print("Fibonacci sequence:")
if num_terms <= 0:
   print("Please enter a positive integer.")
elif num_terms == 1:
   print(term1)
else:
   print(term1)
   print(term2)
   for _ in range(2, num_terms):
      next_term = term1 + term2
      print(next_term)
      term1, term2 = term2, next_term
```

Q4. Write a Python Program to Check Armstrong Number?

```
num = int(input("Enter a number: "))
num_of_digits = len(str(num))
sum_of_cubes = 0
temp = num
while temp > 0:
    digit = temp % 10
    sum_of_cubes += digit ** num_of_digits
    temp //= 10
if num == sum_of_cubes:
    print(f"{num} is an Armstrong number.")
else:
    print(f"{num} is not an Armstrong number.")
```

Q5. Write a Python Program to Find Armstrong Number in an Interval?

```
lower = int(input("Enter the lower limit of the interval: "))
upper = int(input("Enter the upper limit of the interval: "))
print(f"Armstrong numbers between {lower} and {upper} are:")
for num in range(lower, upper + 1):
    num_of_digits = len(str(num))
    sum_of_cubes = 0
    temp = num
    while temp > 0:
        digit = temp % 10
        sum_of_cubes += digit ** num_of_digits
        temp //= 10
    if num == sum_of_cubes:
        print(num)
```