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Q1 Find factorial of given number.

```
num = int(input("Enter a number: "))
fact = 1

for i in range(1, num + 1):
    fact = fact * i

print("Factorial =", fact)
```
```
Enter a number: 5
Factorial = 120
```

Q2 Find whether the given number is Armstrong number.

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

n = len(num)
total = 0

for digit in num:
    total += int(digit) ** n

if total == int(num):
    print("Armstrong Number")
else:
    print("Not Armstrong Number")
```
```
Enter a number: 153
Armstrong Number
```

Q3 Print Fibonacci series up to given term.

```
n = int(input("Enter number of terms: "))

a = 0
b = 1

for i in range(n):
    print(a, end=" ")
    c = a + b
    a = b
    b = c
```
```
Enter number of terms: 2
0 1
```

Q4 Write a program to find if given number is prime number or not.

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

if num > 1:
    for i in range(2, num):
        if num % i == 0:
            print("Not Prime Number")
            break
    else:
        print("Prime Number")
else:
    print("Not Prime Number")
```
```
Enter a number: 7
Prime Number
```

Q5 Check whether given number is palindrome or not.

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

if num == num[::-1]:
    print("Palindrome Number")
else:
    print("Not Palindrome Number")
```

```
Enter a number: 1221
Palindrome Number
```

Q6 Write a program to print sum of digits

```
num = input("Enter a number: ")
total = 0

for digit in num:
    total += int(digit)

print("Sum of digits =", total)
```

```
Enter a number: 1234
Sum of digits = 10
```

Q7 Count and print all numbers divisible by 5 or 7 between 1 to 100.

```
count = 0

for i in range(1, 101):
    if i % 5 == 0 or i % 7 == 0:
        print(i, end=" ")
        count += 1

print("\nTotal count =", count)
```

```
5 7 10 14 15 20 21 25 28 30 35 40 42 45 49 50 55 56 60 63 65 70 75 77 80 84 85 90 91 95 98 100
Total count = 32
```

Q8 Convert all lower cases to upper case in a string.

```
text = input("Enter a string: ")
print("Uppercase String:", text.upper())
```

```
Enter a string: vivan manghnani
Uppercase String: VIVAN MANGHNANI
```

Q9 Print the table for a given number.

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

for i in range(1, 11):
    print(num, "*", i, "=", num * i)
```

```
Enter a number: 3
3 * 1 = 3
3 * 2 = 6
3 * 3 = 9
3 * 4 = 12
3 * 5 = 15
3 * 6 = 18
3 * 7 = 21
3 * 8 = 24
3 * 9 = 27
3 * 10 = 30
```

Q10 Write a program to print the following pattern

```
n = 5

for i in range(n):

    for j in range(1, n - i + 1):
        print(j, end="")
```

```
        for k in range(2 * i - 1):
            if i != 0:
                print("*", end="")


        for j in range(n - i, 0, -1):
            if i == 0 or j != n - i:
                print(j, end="")

        print()
```

```
1234554321
1234*321
123***21
12*****1
1*******
```

Q11 Write a program to print the sum of the following series

```
n = int(input("Enter value of n: "))
sum_series = 0

for i in range(1, n + 1):
    sum_series += 1 / i

print("Sum of the series is:", sum_series)
```

```
Enter value of n: 7
Sum of the series is: 2.5928571428571425
```

Github link = https://github.com/vivanmanghnani46-beep/Python-experiments.git