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Q1.Find a factorial of given number.

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

fact = 1

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

print("Factorial =", fact)
```

```
Enter a number: 5
Factorial = 120
```

Q2. Find whether the given number is Armstrong number.

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

sum = 0
temp = num
n = len(str(num))

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

if num == sum:
    print("Armstrong number")
else:
    print("Not an Armstrong number")
```

```
Enter a number: 153
Armstrong number
```

Q3. Print Fibonacci series up to given term.

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

a, b = 0, 1

print("Fibonacci series:")

for i in range(n):
    print(a, end=" ")
    a, b = b, a + b
```

```
Enter number of terms: 5
Fibonacci series:
0 1 1 2 3
```

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

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

if num <= 1:
    print("Not a prime number")
else:
    for i in range(2, int(num**0.5) + 1):
        if num % i == 0:
            print("Not a prime number")
            break
```

```
    else:
        print("Prime number")
```

```
Enter a number: 7
Prime number
```

Q5. Check whether given number is palindrome or not.

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

temp = num
rev = 0

while temp > 0:
    digit = temp % 10
    rev = rev * 10 + digit
    temp //= 10

if num == rev:
    print("Palindrome number")
else:
    print("Not a palindrome number")
```

```
Enter a number: 121
Palindrome number
```

Q6. Write a program to print sum of digits.

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

sum_digits = 0

while num > 0:
    digit = num % 10
    sum_digits += digit
    num //= 10

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

```
Enter a number: 123
Sum of digits = 6
```

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 numbers =", 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 numbers = 32
```

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

```
text = input("Enter a string: ")

upper_text = text.upper()

print("Uppercase string:", upper_text)
```

```
Enter a string: PRanav
Uppercase string: PRANAV
```

Q9. Print the table for a given number:

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

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

```
Enter a number: 5
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50
```

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 j in range(i):
        print(" *", end="")


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

    print()
```

```
1234554321
1234 *4321
123 * *321
12 * * *21
1 * * * *1
```

Q11. Write a program to print the sum of the following series 1+ ½ + 1/3 + ¼ +....+1/n

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

sum_series = 0.0

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

print("Sum of the series =", sum_series)
```

```
Enter the value of n: 5
Sum of the series = 2.283333333333333
```

Github link = https://github.com/pranavssinha11-glitch/Python.git