Solve all the following problems using the "while" loop.

1. Calculate the sum of all numbers from 1 to a given number. مجموع 1 تا یک عددی
2. n = int(input("یک عدد وارد کنید: "))
3. total = 0
4. i = 1
5. while i <= n:
6. total += i
7. i += 1
8. print("مجموع اعداد از 1 تا", n, "برابر است با:", total)

1. Write a program to print multiplication table of a given number

For example, num = 2 so the output should be

2

4

6

8

10

12

14

16

18

20

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num = int(input("یک عدد وارد کنید: "))

i = 1

while i <= 10:

    print(num \* i)

    i += 1

1. Count the total number of digits in a number: Write a program to count the total

number of digits in a number using a [while loop.](https://pynative.com/python-while-loop/)

For example, the number is **75869**, so the output should be **5**.

num = int(input("یک عدد وارد کنید: "))

count = 0

while num > 0:

    num //= 10

    count += 1

print("تعداد ارقام عدد وارد شده برابر است با:", count)

1. Print list in reverse order using a loop

my\_list = [1, 2, 3, 4, 5]

index = len(my\_list) - 1

while index >= 0:

    print(my\_list[index])

    index -= 1

1. Find the factorial of a given number: Write a program to use the loop to find the factorial of a given number.

num = int(input("یک عدد وارد کنید: "))

factorial = 1

while num > 0:

    factorial \*= num

    num -= 1

print("فاکتوریل عدد وارد شده برابر است با:", factorial)