



STUDENT REPORT

DETAILS

Name

Saleha B

Roll Number

3BR23EE083

EXPERIMENT

Title

FINDING COMMAS

Description

Liam works as a data analyst for a company that stores massive amounts of numerical data. He has been tasked with determining how many commas are used when writing numbers in the range of 1 to N (inclusive) in a specific format

In this format, if numbers are more than four digits long, commas are used to separate the numbers into groups of three, starting from the right for the representation of the number. Your task is to help Liam find and return an integer value, representing the total number of commas used when writing each integer in the range of 1 to N

Input Specification:

Input: An integer value N. representing the number range.

Output Specification:

Return an integer value, representing total number of commas used when writing each integer in the range of 1 to N.

Sample Input:

5000

Sample Output:

4001

Source Code:

```
def count_commas(N):
    total_commas = 0

    # Handle the range from 1,000 to 9,999
    if N >= 1000:
        total_commas += (min(N, 9999) - 999) * 1

    # Handle the range from 10,000 to 99,999
    if N >= 10000:
        total_commas += (min(N, 99999) - 9999) * 1

    # Handle the range from 100,000 to 999,999
    if N >= 100000:
        total_commas += (min(N, 999999) - 99999) * 1

    # Handle the range from 1,000,000 to 9,999,999
    if N >= 1000000:
        total_commas += (min(N, 9999999) - 999999) * 2

    # Handle the range from 10,000,000 to 99,999,999
    if N >= 10000000:
        total_commas += (min(N, 99999999) - 9999999) * 2

    # Handle the range from 100,000,000 to 999,999,999
    if N >= 100000000:
        total_commas += (min(N, 999999999) - 99999999) * 2

    # Handle the range from 1,000,000,000 to N
    if N >= 1000000000:
        total_commas += (N - 999999999) * 3

    return total_commas

# Sample Input
N = int(input())

# Output the result
print(count_commas(N))
```

RESULT

5 / 5 Test Cases Passed | 100 %