STUDENT REPORT

DETAILS

Name

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Roll Number

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EXPERIMENT

Title

ENCODE THE NUMBER

Description

You work in the message encoding department of a national security agency. Every message that is sent from or received in your office is encoded. You have an integer N, and each digit of N is squared and the squares are concatenated together to encode the original number. Your task is to find and return an integer value representing the encoded value of the number.

input1: An integer value N representing the number to be encoded.

Output :

Return an integer value representing the encoded value of the number.

Sample Input:

167

Sample Output:

13649

Source Code:

```
def encode_number(N):
    # Convert the number to a string to iterate over each digit
    str_num = str(N)

    # List to hold the squared values as strings
    squared_digits = []

    # Process each digit
    for digit in str_num:
        squared_value = int(digit) ** 2  # Square the digit
        squared_digits.append(str(squared_value))  # Convert to string and store

    # Concatenate all squared values
    encoded_value = ''.join(squared_digits)

    # Convert the concatenated string back to an integer
    return int(encoded_value)

# Read input
N = int(input().strip())

# Calculate and print the result
result = encode_number(N)
print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %