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):
    str_N = str(N)
    encoded_str = ""

for digit in str_N:
        squared_digit = int(digit) ** 2 # Square the digit
        encoded_str += str(squared_digit)

    encoded_value = int(encoded_str)

    return encoded_value

# Input reading
N = int(input())

result = encode_number(N)
    print(result)
```

