1. Program   ⓘ

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Attempted: 1/1

Question 1

🔖 Revisit Later

How to Attempt?

Sum of Powers of Digits_1: Alex has been asked by his teacher to do an assignment on powers of numbers. The assignment requires Alex to find the sum of powers of each digit of a given number, as per the method mentioned below.

If the given number is 582109, the Sum of Powers of Digits will be calculated as =
= (5 raised to the power of 8) + (8 raised to the power of 2) + (2 raised to the power of 1) + (1 raised to the power of 0) + (0 raised to the power of 9) + (9 raised to the power of 0)

i.e. each digit of the number is raised to the power of the next digit on its right-side. Note that the right-most digit has to be raised to the power of 0. The sum of all of these powers is the expected result to be calculated.

Example - If the given number is 582109, the Sum of Powers of Digits =
= (5 raised to the power of 8) + (8 raised to the power of 2) + (2 raised to the power of 1) + (1 raised to the power of 0) + (0 raised to the power of 9) + (9 raised to the power of 0)
= 390625 + 64 + 2 + 1 + 0 + 1 = 390693

Alex contacts you to help him write a program for finding the Sum of Powers of Digits for any given number, using the above method.

Write the logic in the given function **sumOfPowerOfDigits** where,
input1 represents the given number.
The function is expected to return the "Sum of Powers of Digits" of input1.

Assumptions: For this assignment, let us assume that the given number will always contain more than 1 digit, i.e. the given number will always be >9.

JAVA7   ▼   Compiler: Java - 1.7   🕐 ☾ </> ⤢ ⋮

```java
import java.io.*;
import java.util.*;

// Read only region start
class UserMainCode
{

    public int sumOfPowerOfDigits(int input1){
        // Read only region end
        // Write code here...
        if (input1 <= 9) return 0;

        String num = String.valueOf(input1);
        int sum = 0;

        for (int i = 0; i < num.length(); i++) {
            if (i == num.length() - 1) {
                sum += 1;
                System.out.println(num.charAt(i) + " ^ " + 0);
            } else {
                sum += Math.pow(Integer.parseInt(String.valueOf(num.charAt(i))),
                        Integer.parseInt(String.valueOf(num.charAt(i + 1))));
            }
        }
        return sum;
    }
}
```

☐ Use Custom Input   ⓘ   Compile and Test   Submit Code

1. Program ▾   ⓘ

‹ **1** ›   ▦   ▤

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☐ Use Custom Input   ⓘ | **Compile and Test**   **Submit Code**

Code Execution   Code History

0/1 - Sample Test Cases Failed

✅ **default**   ⌃

🕐 CODE EXECUTION DETAILS
Time: 331 ms
Memory: 103812 kb

</> TEST CASE INFORMATION
Input
582109

Expected Output
390693

Actual Output
390693

>_ CONSOLE OUTPUT

9 ^ 0

📄 STANDARD ERROR/WARNING
None

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1. Program ▾   ⓘ

< **1** >   ▦   🖫

Attempted: 1/1

```
24                    }
25                    return sum;
26            }
27    }
```

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🔖 Revisit Later

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☐ Use Custom Input   ⓘ   **Compile and Test**   **Submit Code**

Code Execution   Code History

0/5 - Graded Test Cases Failed

✅ TC 5

✅ TC 4

✅ TC 3

✅ TC 2

✅ TC 1

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