

# Summing Digits

## Purpose

To review recursion

## Directions

Create a class called Sum with a recursive function called sumDigits with the following signature:

```
public static long sumDigits(long n)
```

that computes the sum of the digits in a number repeatedly, until the sum is a single digit. For example, if we call sumDigits(123456), the following would result:

```
sumDigits(123456) => 1+2+3+4+5+6 => 21 => 2+1 => 3
```

so the final answer would be 3. You must meaningfully use recursion for this lab in order to receive any credit.

Hint: For this problem it might be useful to convert back and forth between longs and strings. This can be done using the Long.parseLong method and the Long.toString method.

Note: This problem is based on the “Recursive Sum Digit” problem on Hackerrank, but it has been simplified. If you find this lab relatively straightforward, I recommend you take a look at that problem.

<https://www.hackerrank.com/challenges/recursive-digit-sum>