

## Activity 2C

Consider the incomplete tail recursive code which sums the digits of an integer n:

```
lastDigit:: Int -> Int
lastDigit n = n `rem` 10
```

```
butLastDigit:: Int -> Int
butLastDigit n = n `div` 10
```

```
digitSum:: Int -> Int
digitSum n = digitTail n 0 where
  digitTail n sum =
    if n==0 then sum
    else digitTail ( _____ ) ( _____ )
```

To assist you in seeing how the two parameters need to change in the recursive call of digitTail, I am providing you with the substitution model for digitSum 173:

```
digitSum 173 =>
digitTail 173 0 =>
digitTail 17 3 =>
digitTail 1 10 =>
digitTail 0 11 =>
11
```