1 Problem

$n!$ means $n \times (n-1) \times \ldots \times 3 \times 2 \times 1$

Find the sum of the digits in the number 100!

2 Solution

```
sumDigits :: [Char] → Int
sumDigits "" = 0
sumDigits (x : xs) = (read (x : "") :: Int) + sumDigits xs
main = do
  let sumdigs = (sumDigits ∘ show) $ foldl (λacc z → acc ∗ z) 1 [1..100]
  putStrLn $ "The sum of the digits in the expansion of 100! is " ++ show sumdigs ++ "."
```

3 Result

```
runhaskell problem20.lhas
The sum of the digits in the expansion of 100! is 648.
```